RAA-5

RAA-5: Excavation/Offsite Disposal

ASSUMPTIONS:

- i. Discount rate for net present worth calculation of 7% per recommendation of EPA document 540-R-00-002, A Guide to Developing and Documenting Cost Estimates During the Feasibility Study.
- ii. Cost estimating sources:

Building Construction Cost Data, RS Means, 58th Edition, 2000 Environmental Remediation Cost Data, RS Means, 6th Edition, 2000 Local vendors, RI costs for Pownal Tannery, and ongoing projects

- iii. Abbreviations: CY = cubic yards; CF = cubic feet; SY = square yard; SF = square feet; LF = linear feet; LS = lump sum; EA = each; MWK = man weeks; MSF = thousand square feet; MO = month; WK = week; CYL = cylinder.
- iv. Future use of site for recreational purposes. A separate investigation and cost estimate will need to be prepared for future site development.
- v. For costing purposes, assumed that wetlands will be recreated at a 1:1 ratio.
- vi. A 1.5 conversion factor was used to convert from CY to TON for sediment/sludge cost calculations
- vii. RI determination of waste quantities adequate for implementation of Alternative 5. No additional sampling required to further delineate extent of waste.

CAPITAL COST ITEMS:

Estimated Time to Complete Alternative:

- Mobilization/Demobilization:	4 wks
- Site Work	5 wks
- Excavation	20 wks
- Wetlands	3 wks
- Site Restoration	2 wks

8.5 Months

Note: Total project duration does not include seasonal impacts or delays.

1. Mobilization/Demobilization:

Site construction activities will require office trailers and field office supplies, storage trailers, decontamination trailers, sanitary facilities, utilities (phone and electrical, including connect/disconnect fees and monthly charges), and site lighting. Assumed installation of electrical poles will be necessary to bring power to the lagoon area (1 pole/150 LF). During construction activities, security will be provided 24 hrs/day at 7 days/wk. An allowance for pre-/post- construction submittals and implementation plans is included based on hourly rates for engineering and office support. See hourly breakdown included with applicable Common Cost Worksheets.

2. Site Work:

General Equipment: Includes construction support equipment such as site vehicles, dumpsters, and water coolers for the site office trailers. A portable generator is included to support equipment located away from electrical receptacles where using an extension cord would be impractical.

Continuous Air Monitoring: Assumed 1 laborer at \$55/hr will conduct continuous monitoring during 25% of site preparation and excavation. See applicable Common Cost Sub-Element Worksheet for breakdown of monthly expense.

Clearing/Grubbing: Will need to clear and grub site to facilitate movement of construction equipment. See applicable RAA-5 Capital Cost Sub-Element Worksheet for additional assumptions.

Well Abandonment/Replacement: Assumed 7 wells in the lagoon area will need to be abandoned/replaced for cap construction and excavation of perimeter berm between Hoosic River and Lagoons 1 and 5. Cost estimate based on experience.

Surveying: Assumed 2-man crew with GPS at \$135/hr onsite for 1 week during general site preparation and also for 21 weeks during excavation and capping activities at 3 days/week. The unit cost estimate was based on information from an ongoing project. The Subcontractor's cost includes hours for 1 supervisor at \$50/hr and has an additional mark up to include Contractor's O&P.

Erosion-Dust Control: Assumed use of a water truck for dust suppression, the installation of silt fencing with hay bales along the access road bordering the Hoosic River (approximately 1,800 LF), and an allowance for construction of one sedimentation trap (50'x 25'x 6'). Exact location, size and grading requirements to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for sedimentation basin material and quantity assumptions made for costing purposes.

Access Roads-Perimeter: A temporary perimeter road around landfill cap will need to be installed to facilitate excavation/consolidation/capping activities (using 2,200 LF of road). See applicable Common Cost Sub-Element Worksheet for breakdown of unit

cost/100 LF. Road cross-section consists of a layer of geotextile, and 0.5 feet of crushed stone.

Access Roads-Lagoons: Road access, through Lagoons 1, 4 and 5, is needed to facilitate excavation of contaminated material (using 500 LF). Road cross-section consists of 3' of subgrade fill, a layer of geotextile, and 0.5 feet of crushed stone..

Perimeter Construction/Security Fence: Assumed the removal of existing fence and the installation of a 7-foot high fence around the entire perimeter of the Lagoon area. See applicable RAA-5 Capital Cost Sub-Element Worksheet for additional assumptions.

Backfill Lagoon 2: Lagoon 2 will be backfilled to site grade elevation of 510' to create a staging area for site trailers, decontamination facilities and structures. The final two feet of backfill will be 1.5" crushed gravel. See applicable Common Cost Sub-Element Worksheet for additional assumptions.

Decontamination Structure – Heavy Equipment: Two, 8" thick, 25'x 65', concrete pads will be constructed in the staging area to remove sediment from equipment. Pad construction includes a 6" gravel base, a concrete curb and sump with 12" corrugated pipe around perimeter. Exact locations and size to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for assumed quantities and material unit costs.

Decontamination Structure – Personnel: Two, 4" thick, 6' x 6', concrete pads will be constructed in the staging area. Pad construction includes a 4" gravel base with a concrete curb around the perimeter. Exact locations and size to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for assumed quantities and material unit costs.

Dewater Standing Water in Lagoons: Standing water volume estimate of approximately 2,841,000 gal in Lagoons 1, 2, 4 and 5. Requires the use of one 300 GPM pump operating 24 hrs/day for 1 week to remove initial volume. Assumes no immediate ground water recharge. During construction, figure standing water will need to be removed approximately once per month to account for slow ground water recharge and precipitation accumulation. Dewatering of standing water assumed to be above the water table. See applicable Common Cost Sub-Element Worksheet for quantities and unit costs.

Collection & Treatment of Standing Water in Lagoons: Will treat standing water from lagoons using eight Carbon Adsorption units. Each unit consists of two vessels containing 1,000 lbs of carbon/vessel; 2,000 lbs of carbon assumed to treat 100,000 gallons. Fractionation tanks (20,000gal/tank) will be needed to store untreated water. Discharge of treated water will occur onsite through two infiltration galleries assumed to be 20'x 5'x 5' and consisting of geotextile and riprap, exact location and size to be determined during design. Analytical testing will be conducted prior to initial discharge

to ensure proper treatment. See applicable Common Cost Sub-Element Worksheet for quantities and unit costs.

Continuous Cleanup: Cleanup of site during construction activities – 1 laborer. Means unit price including localization factor and markups for overhead and profit.

Site Restoration: Estimate from previous project. Costs to remove concrete structures, repair access roads, and clean up debris.

3. Excavation of Waste Material, Backfill & Wetland Mitigation:

Excavation: Estimate includes excavating approximately 31,100 CY of saturated sludge and 42,500 CY of unsaturated sludge from Lagoons (Table 2.7-1), loading the material onto trucks and transporting the material to a dewatering pad (if saturated) or directly to the disposal facility (if unsaturated). Cover soil from Lagoon 1 will be stockpiled for future use or disposal. Reuse of material not included in cost estimate. Assuming excavation rate of 60 CY/hr using two excavators. Quantity of removed material padded by 20%. Other costs include truck bed liners (2 liners/day) and 20 SY bed covers (1 cover/day). Excavation assumed to be conducted without dewatering below the water table. 30% of operation assumed to occur under Level B conditions.

Odor Suppression: Application of foam odor suppressant during excavation of contaminated material. Costs for labor include 1 laborer at \$65/hr. Material costs include shipping.

Hauling to Disposal Facility/Disposal Charges: For costing purposes, disposal facility located near Montpelier, Vermont, a distance of 127 miles from Pownal. Assumed a travel time of 4 hrs one way without heavy traffic.

Confirmatory Soil Sampling: Needed to verify/confirm that desired concentration levels have been achieved through excavation. Analysis cost includes testing for Pest/PCBs, VOCs, SVOCs, Metals/CN and Dioxins.

Technician – Soil Sampling: Labor required to collect samples during excavation - 1 technician at \$55/hr. Includes contractor mark up for overhead and profit.

Sludge Dewatering Structures: Construction costs for a 30' x 40' dewatering structure to store saturated, contaminated, material before treatment. Components for construction determined from EPA document 625/6-89/022; S/S of CERCLA and RCRA Wastes: Physical Tests, Chemical Testing Procedures, Technology Screening and Field Activities, Section 7.1.3. - Untreated Waste Storage. Exact number and location of structures to be determined in design phase.

Level B Equipment/Operation/Shipping Allowance: Assuming a crew of 15 will need equipment and supplies for the duration of the excavation and capping of the contaminated sludge.

Decontamination of Heavy Equipment: Includes decontamination of 5 pieces of equipment, once/day during initial site work and excavation of contaminated material. Means unit price including localization factor and markups for overhead and profit.

Operation of Trash Pump: Cost to operate a trash pump for decontamination over period of initial site work, excavation and capping. See Common Cost Sub-Element Worksheet for decontamination of heavy equipment.

Backfill Excavated Material: Assuming all of the material excavated will be backfilled with clean material from a local borrow source. Means unit price includes in-place, soil density tests, borrow material, spreading and compacting with roller.

Wetland Mitigation: Assuming 1:1 replacement of 2.4 acres of wetlands with locations of recreated wetland areas to be determined at the design stage.

Seeding/Mulch/Fertilizer: Application over cap area of 4.0 acres. Means unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Institutional Controls/Land Use Restriction: See hourly breakdown and rates included with applicable Common Cost Worksheets.

011011201	SPOSAL					<u>DST ESTIMATE SUMMAR</u>
Site:	Pownal Tannery Site	Description:	Alternative 5	consists of excavati	ng all of the co	ontaminated waste identifited during the RI
ocation:	Pownal, VI					apital costs occur in Year 0. Annual costs
hase:	Feasibility Study		occur in Year	rs 1-6. Periodic cas	ls occur every	5 yrs for a period of 30 years.
Base Year: Date:						•
rate:	Apr-01					
APITAL CO	OSTS:					
	DESCRIPTION	QTY	UNIT	UNIT	TOTAL	NOTES
Aobilization	/ Demobilization					:
	Construction Equipment	2	LS	\$1,765.48	\$3,531	Excavators, loaders, etc.
	Submittals/Implementation Plans	1	LS	\$100,985.69	\$100,986	
	Temporary Facilities & Utilities	1	LS	\$70,649.13	\$70,649	
	Field Office Supplies	1	LS	\$14,519.33	\$14,519	
	Post-Construction Submittals	. 1	LS	\$29,481.95		Post-construction report
	SUBTOTAL			-	\$219,167	•
ite Work						
	General Equipment	1	LS	\$43,676.16	\$43,676	
	Continuous Air Monitoring	8,5	MO	\$5,120.17	\$43,521	•
	Clearing/Grubbing	1	LS	\$20,474.62	\$20,475	
	Well Abandonment/Replacement	7	· EA	\$5,775,00	\$40,425	
	Surveying	63	DAY	\$1,709.40	\$107,692	2-man crew
	Erosion/Dust Control Measures	1	LS	\$30,551.33	\$30,55t	
	Access Roads - Perimeter	22	100 LF	\$1,657.30	\$36,461	
-	Access Roads - Lagoons	9	100 LF	\$5,075.78	\$44,413	
	Backfil Lagoon 2	i	LS	\$506,827.00	\$506,827	
	Decon. Structure - Heavy Equipment	2	ĹŠ	\$29,360.54	\$58,721	•
	Decon, Structure - Personnel	2	EA	\$311.13	\$622	
•	Dewater Standing Water in Lagoons	1.5	wĸ	\$9,940.27	\$14,910	
	Collect and Treat Standing Water	3	WK			
	Decon. Frac Tanks			\$123,528.43	\$370,585 \$20,000	
		20	EA	\$1,000.00		
	Continuous Cleanup	27	MWK	\$819.22		Means including O&P and localization factor
	Site Restoration SUBTOTAL	1	LS	\$5,000.00_	\$5,000 \$1,366,000	
	SOUTOTAL				\$1,300,000	
xcavation o	of Waste Material, Backfill and Wetland Mitigation					
	Excavation	1	LS	\$563,695.87	\$563,696	
	Odor Suppression	1	LS	\$80,145.45	\$80,145	
	Hauling to facility and disposal	1	LS	\$11,799,364.50		
	Confirmatory soil sampling	70	EA	\$1,100.00	\$77,000	
	Technician - soil sampling	†	LS	\$50,820.00	\$50,820	*
	Studge Dewatering Structures Collection & Treatment of Runoff from	8	LS	\$3,212.65	\$25,701	
	Dewatering Structures	t	LS	\$136,209.76	\$136,210	•
	Level B Equipment	15	PER	\$5,600.30	\$84,005	
	Level B Operation	2	MO	\$13,349.08	\$22,226	
	Level B Shipping Allowance	1	LŠ	\$5,000.00	\$5,000	
	Decontamination of Heavy Equipment	625	EA	\$220,44		Means including O&P and localization factor
	Operation of Trash Pump	125	DAY	\$220,44 \$156,91	\$137,772	means including your and localization racios
	Backfill Excavated Material	125		\$156.91 \$535,202.29		
			LS ACRE		\$535,202	
	Lagoon Area Restoration/Stabilization Seeding/Mutching/Fertilizer	2.4 25,168	ACRE SY	\$46,200,00 \$1.37		Including O&P
	SUBTOTAL	23,100	31	\$1.37_	\$34,518 \$13,682,155	•
UBTOTAL						•
NO FOTAL				L	\$15,267,321	.
	Contingency (10% scope + 15% bid)	25%			\$3,816,830	
	geney (Terr coope - Terry (IM)	20/0		_		. <u>.</u>
UBTOTAL					\$19,084,152	
	Project Management	5%			\$954,208	
	Remedial Design	8%			\$1,526,732	
	Construction Management	6%			\$1,145,049	
	Institutional Controls	-			\$31,883	Land use restrictions
OTAL CAP	TTAL COST:			[\$22,742,023	1
	LM COSTS (Year 1):			hp	 -	1
NNUAL O8				UNIT		
NNUAL O8	DESCRIPTION	QTY	UNIT	COST	TOTAL	NOTES
		QTY	UNIT		TOTAL	NOTES
NNUAL O8	ng			COST		NOTES
		4	UNIT EA EA		\$131,088	NOTES 12 locations, quarterly; inc 3 QA/QC Samples

Alternative 5 OFFSITE DIS					CC	<u>IST ESTIMATE SUMMARY</u>	4
Location: Phase: Base Year:	Powhal Tannery Site Pownat, Vt Feasibility Study 2001 Apr-01		and disposing the	he waste at an of	fsite landfill. Ca	ntaminated waste identifited during the Rt apital costs occur in Year 0. Annual costs 5 yrs for a period of 30 years.	
	Sediment Sampling - Equipment and Labor	1	EA	\$6,364.10	\$6,364		1
:	Sediment Analysis - VOCs, SVOCs, Metals Sediment Analysis - Dioxins SUBTOTAL	7 5	EA EA:	\$1,100.00 \$800.00		4 locations, annually; inc 3 QA/QC Samples 1 QA/QC	
	Technical Support Progress Reports		:	a Env	£44.040		
	O&M Oversile	•		15% 5%	\$41,948 \$13,983		
SUBTOTAL					\$335,582		ł
Conlingency				10%	\$33,558		
	TOTAL ANNUAL OSM COST (Year 1)			l	\$369,140		Ĭ
ANNUAL O&	M COSTS (Years 2-3):	÷			 -		1
	DESCRIPTION	QTY	UNIT	COST	TOTAL	NOTES	
Site Monitorin	ng Groundwater Sampling - Equipment and Labor	2	EA	\$32,77 1.92	\$65,544		
	Groundwater Analysis - VOCs, SVOCs, Metals	30	EA	\$2,000.00	\$60,000	12 locations, semi; inc 3 QA/QC Samples	
	Groundwater Analysis - Dioxins Sediment Sampling - Equipment and Labor	14 1	EA EA	\$750.00	\$10,500	- Semiannually, inc 2 QA/QC Samples	
	Sediment Analysis - VOCs, SVOCs, Metals	7	EA EA	\$6,364.10 \$1,100.00	\$6,364 \$7,700	4 locations, annually; inc 3 QA/QC Samples	Ī
	Sediment Analysis - Dioxins	5	EA	\$800.00	\$4,000	1 QA/QC	
	SUBTOTAL	7			\$154,108	• •	
	Technical Support Progress Reports			15%	\$23,116		1
SUBTOTAL	O&M Oversite			5%	\$7,705 \$184,930		1
Contingency				10%			
SUBTOTAL				10%	\$18,493		
			٠				
	TOTAL ANNUAL O&M COST (Years 2-3)			L	\$203,422		
ANNUAL OS	M COSTS (Years 4-6):			UNIT			1
Sile Monitorin	DESCRIPTION	C TY	UNIȚ	COST	TOTAL	NOTES	
	Groundwater Sampling - Equipment and Labor		EA	\$32,771.92	\$32,772		
	Groundwater Analysis - VOCs, SVOCs, Metals Groundwater Analysis - Dioxins	: 15 14.	EA EA	\$2,000.00 \$750.00		12 locations, annuat; inc 3 QA/QC Samples - Annually; inc 2 QA/QC Samples	1
,	Sediment Sampling - Equipment and Labor	1.	EA :	\$6,364,10	\$6,354		
	Sediment Analysis - VOCs, SVOCs, Metals Sediment Analysis - Dioxins	7 5.	EA	\$1,100.00		I locations, annually; inc 3 QA/QC Samples 1 QA/QC	
	SUBTOTAL		EA ·	\$800.00	\$91,336	1 dauge	
	Technical Support						
	Progress Reports O&M Oversite			15% 5%	\$13,700 \$4,567	•	Ì
SUBTOTAL				-	\$109,603		1
Contingency				25%	\$27,401		
SUBTOTAL							
	TOTAL ANNUAL O&M COST (Years 4-6)			ī	\$137,004		
PERIODIC CO	OSTS:			<u> </u>			1
				UNIT		e e	į
DESCRIPTION	N YR	QTY	UNIT	COST	TOTAL	NOTES	
	Five Year Report 5-30	* *1	EA	\$12,000,00	\$12,000.00 \$12,000.00		
	:	1.3		- 7.'		· · · · · · · · · · · · · · · · · · ·	•
	•						

긤	ST ESTIMATE SUMMARY	Description: Alternative 5 consists of excavating all of the contaminated waste identifited during the RI								
1	tarrinated waste identifited during the RI pital costs occur in Year 0. Annual costs						Pownal Tannery Site Pownal, VI	Site: Location:		
1	yrs for a period of 30 years.						Feasibility Study	Phase:		
ı	,,,						2001			
╝			<u> </u>				Apr-01	Date:		
1	•						ALUE ANALYSIS:	PRESENT V		
	NOTES	PRESENT VALUE	DISCOUNT FACTOR	TOTAL COST/YR	COST	YEAR	COST TYPE			
1	See support sheet for discount factors and	-	-	\$22,742,023	\$22,742,023	0	Capital Cost			
ł	Present Value calculation	-	-	\$369,140	\$369,140	1	Annual O&M Cost			
-		-		\$203,422	\$406,845	2-3	Annual O&M €ost			
		-	-	\$137,004	\$411,012	4-6	Annual O&M Cost			
- 1		•	-	\$12,000	\$12,000	5 10	Periodic Cost Periodic Cost			
- 1	Demodel Astronomy		-	\$12,000 \$12,000	\$12,000 \$12,000	15	Periodic Cost			
- 1	Remedial Action Report	-	-	\$12,000	\$12,000	20	Periodic Cost			
-		-		\$12,000	\$12,000	25	Periodic Cost			
1	•		į	\$12,000	\$12,000	30	Periodic Cost			
1		Acc 250 pp.	.,		• •	DE 11 TEM14 TRA	TOTAL PRESENT VALUE	·		
1		\$23,750,084				JF ALTERNATIVE	TOTAL PRESENT VALUE			
_			· · · · · ·		•					
	·		· •	1						
	•	•		.,						
	•						•			
								;		
	•									

Articles State of the Communication of the Communic

. --

Alternative 5

IN SITU RCRA/CERCLA FINAL COVER

PRESENT VALUE ANALYSIS

Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01

Description:

Alternative 5 consists of excavation and offsite disposal of contaminated waste. Capital costs occur in Year 0. Annual costs occur in Years 1-6. Periodic costs occur every 5 yrs for 30 yrs.

,	Year	Capital Costs (\$)	Annual O&M Costs (\$)	Periodic Costs (\$)	Total Costs (\$)	Discount Factor at 7%	Total Present Value Cost at 7% (\$)	
	0	\$ 22,946,823	\$0		\$22,946,823	1.000	\$22,946,823	
	1		\$369,140		\$369,140	0.935	\$345,146	
	2		\$203,422		\$203,422	0.873	\$177,588	
	3		\$203,422		\$203,422	0.816	\$165,993	
	4		\$137,004		\$137,004	0.763	\$104,534	
	5		\$137,004	\$18,884	\$155,888	0.713	\$111,148	
	6		\$137,004		\$137,004	0.666	\$91,245	
	7				\$0	0.623	\$0	
	8				\$0	0.582	\$0	
	9				\$0	0.544	\$0	
	10			\$18,884	\$18,884	0.508	\$9,593	
	11				\$0	0.475	\$0	
	12				\$0	0.444	\$0	
	13				\$0	0.415	\$0	
	14				\$0	0.388	\$0	
	15			\$18,884	\$18,884	0.362	\$6,836	
	16				\$0	0.339	\$0	
	17				\$0	0.317	\$0	
•	1B				\$0	0.296	\$0	
	19				\$0	0.277	\$0	
	20			\$18,884	\$18,884	0.258	\$4,872	
	21				\$0	0.242	SO	
	22	•			\$0	0.226	\$0	
	23				\$0	0.211	\$0	
	24				\$0	0.197	\$0	
	25			\$18,884	\$18,884	0.184	\$3,475	
	26				\$0	0.172	\$O	
	27				\$0	0.161	\$0	
	28				\$0	0.150	\$0	
	29				\$0	0.141	\$0	
	30			\$18,884	\$18,884	0.131	\$2,474	

TOTAL PRESENT VALUE OF ALTERNATIVE

\$23,969,726

Alternative 5 Capital Cost	Sub-Element								
	TION EQUIPMENT						COST	WORKSHE	<u>EET</u>
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								
Work Staten									
WOIR OWNER	Mobilization and demobilization co	sts for lar	rge equipr	ment.					
Cost Analys	is:							·	
DESCRIPTION Dozer Site Trucks Excavator Loader Roller	ON (Means)	QTY 1 2 2 1	UNIT EA EA EA EA	LABOR	EQUIP \$274 \$274 \$274 \$274 \$274	MTRL - - - - -	UNIT TOTAL \$274 \$274 \$274 \$274 \$274	\$274.00 \$548.00 \$548.00 \$274.00 \$274.00 \$1,918.00	
Area Cost Fa	actor						69%	\$1,323.42	
Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor O SUBTOTAL Contractor P	or Profit verhead						5% 10% 5% 10%	\$66.17 \$1,389.59 \$138.96 \$1,528.55 \$76.43 \$1,604.98 \$160.50	
TOTAL UNIT	COST							\$1,765.48	i
		·		•			•		
Source of C	ost Data; Building Construction Cost Data, i	RS Mean	s, 58th Ec	dition, 2000					
Chet Adiusti	ment Factor:		.~						
Cost Aujusu				HOTER.					
	FACTOR: H&S Productivity (labor & equip)		l	NOTES: Not Applica	able				
	Escalation to Base Year		į	· ·		.00 for base	year of 2001,	, cost information 2000	o
	Area Cost Factor	X	i	0.69 localiz	zation factor	for 052 zip :	code (Means)	.	
	Subcontractor Overhead & Prof.	X	i	Assuming r	markup of 1	0% for both	Overhead an	nd Profit.	
	Prime Contractor Overhead & Pro	f. X	I	Assuming r	markup of 16	0% for both	Overhead an	nd Profit.	

Common costs

Capital Cost Sub-Element SUBMITTALS & IMPLEMENTATION PLANS

COST WORKSHEET

Site:

Pownal Tannery Site

Location: Phase:

Pownal, Vt Feasibility Study

Base Year:

2001

Date:

Apr-01

Work Statement:

Preconstruction submittals are assumed to include health and safety plan, construction QA/QC plan and spill

prevention plan.

Cost Analysis:

DESCRIPTION	QTY	UNIT	LABOR	EQUIP	MTDI	UNIT	TOTAL
Engineering	QII	CIALL	LABOR	EQUIP	MTRL	TOTAL	TOTAL.
Permitting	320	HR	\$75.00	\$0.00	\$0.00	\$75.00	\$24,000.00
Design	480	HR	\$75.00	\$0.00	\$0.00	\$75.00	\$36,000.00
Meetings	100	HR	\$75.00	\$0.00	\$0.00	\$75.00	\$7,500.00
Office Support			4.0.00	40.00	ψυ.σο.	Ψ15.00	ψ1-,500.00
Support staff	80	HR	\$40.00	\$0.00	\$0.00	\$40.00	\$3,200.00
Office Expenses	1	LS	\$0.00	\$0.00	\$5,000.00	\$5,000.00	
SUBTOTAL				• • • • •	7-71111	V-,	\$75,700.00
Subcontractor Overhead.	•					5%	\$3,785.00
SUBTOTAL						370	\$79,485.00
Subcontractor Profit						10%	\$7,948.50
SUBTOTAL						7070	\$87,433.50
Contractor Overhead						5%	\$4,371.68
SUBTOTAL						370	
Contractor Profit						400/	\$91,805.18
						10%	\$9,180.52
TOTAL UNIT COST	,						\$100,985.69

Source of Cost Data:

Engineering judgement

Alternative 5 Capital Cost TEMPORAR	Sub-Element Y FACILITIES AND UTILITIES		_				COST	WORKSHEE
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01							
Work Staten	nent: Assuming onsite construction time of	approxii	nately 34	weeks at 4	weeks/mon	łh.	., .	
		•						
Cost Analysi	is:							
Temporary Si Temporary For Portable Tolk Mob/Demob Temporary O Install power Utility connect	Temporary Storage Trailer (2 units) torage Trailer (2 units) encing ets - Chemical (3 units) Temporary Office with steps (2 Units) iffice with steps (2 Units) poles (2) ction/disconnection e and electric)	QTY 2 17 2,100 26 2 17 2 0 9	UNIT EA MO LF MO EA MO EA EA	LABOR 50 \$0	EQUIP 50 \$0	MTRL \$2,000	UNIT TOTAL \$340 \$150 \$6.90 \$75 \$430 \$540 \$2,847 \$2,000 \$500	\$680 \$2,550 \$14,490 \$1,913 \$860 \$9,180 \$5,694 \$0 \$4,250
DESCRIPTIO Decontamina		QTY 9	TINU MO	LABOR \$0	EQUIP \$0	MTRL \$2,275	TOTAL \$2,275	TOTAL \$19,338
Area Cost Fa SUBTOTAL (ctor [Local and Means)						69%	\$13,342.88 \$52,959
Subcontracto SUBTOTAL Subcontracto SUBTOTAL Contractor On SUBTOTAL Contractor Pr	r Profit verhead ofit						5% 10% 5% 10%	\$2,647.97 \$55,607.34 \$5,560.73 \$61,168.08 \$3,058 \$64,226 \$6,422.65
Source of Co	ost Data: Environmental Remediation Cost Data Local unit costs from on ongoing proje	a, RS Me ect.	eans, 6th	Edition, 200	0			
Cost Adjustn	nent Factor:							• .
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X X		0.69 localize	Factor of 1.0 ation factor narkup of 16	for 052 zip o	year of 2001, code (Means) Overhead an Overhead an	d Profit.

Common Costs
Capital Cost Sub-Element
FIELD OFFICE SUPPLIES

COST WORKSHEET

Site: Location: Pownal Tannery Site

Pownal, Vt Feasibility Study Phase: Base Year: 2001

Date: Apr-01

Work Statement:

Purchase miscellaneous field office supplies.

Cost Analysis:

DESCRIPTION	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
Office Supplies								
Cordless phone with answering machine	2	EA .	\$0.00	\$0.00	\$90.00	\$90.00	\$180.00	
Computer	2	MO	\$0.00	\$0.00	\$480.00	\$480.00	\$960.00	\$40/MO for 6Mo
Surge Protectors	2	EA	\$0.00	\$0.00	\$28.49	\$28.49	\$56.98	
Floppy disks	2	PACK	\$0.00	\$0.00	\$9.99	\$9.99	\$19.98	40/PACK
Printer/fax/copier	1	EA	\$0.00	\$0.00	\$199.97	\$199.97	\$199.97	
HP Printer toner	20	EA	\$0.00	\$0.00	\$29.99	\$29.99	\$599.80	
Standard Task Chair	5	EA	\$0.00	\$0.00	\$119.75	\$119.75	\$598.75	
Standard Folding Chair	5	CARTON	\$0.00	\$0.00	\$77.35	\$77.35	\$386.75	5/CARTON
Shelving	2	EA	\$0.00	\$0.00	\$317.50	\$317.50	\$635.00	H74xW36xD21
Folding Tables - Heritage Series	2	EA	\$0.00	\$0.00	\$102.15	\$102.15	\$204.30	H29xW30xL96
Pens	10	PACK	\$0.00	\$0.00	\$3.89	\$3.89	\$38.90	60/PACK
Paper	20	CASE	\$0.00	\$0.00	\$20.99	\$20.99	\$419.80	5000/CASE
Pencils	10	PACK	\$0.00	\$0.00	\$3.19	\$3.19	\$31.90	48/PACK
Highlighters	5	PACK	\$0.00	\$0.00	\$4.35	\$4.35	\$21.75	43/PACK
Notepads	10	EA	\$0.00	\$0.00	\$4.35	\$4.35	\$43.50	
Sharpies (thick)	25	EΑ	\$0.00	\$0.00	\$1.52	\$1.52	\$38.00	
Sharpies (Thin)	50	EA	\$0.00	\$0.00	\$0.79	\$0.79	\$39.50	
Stapler	4	EA	\$0.00	\$0.00	\$9.99	\$9.99	\$39.96	
Staples	2	BOX	\$0.00	\$0.00	\$2.99	\$2.99	\$5.98	1000/BOX
Staple remover	4	EA	\$0.00	\$0.00	\$0.69	\$0.69	\$2.76	
Scotch Tape	5	EA	\$0.00	\$0.00	\$1.22	\$1.22	\$6.10	
Paper clips	5	PACK	\$0.00	\$0.00	\$1.69	\$1.69	\$8.45	1000/PACK
Binder clips	5	PACK	\$0.00	\$0.00	\$3.55	\$3.55	\$17.75	60/PACK
Masking tape	5	PACK	\$0.00	\$0.00	\$5.29	\$5.29	\$26.45	4/PACK
Hanging folders	5	BOX	\$0.00	\$0.00	\$3.99	\$3.99	\$19.95	25/BOX
Manila folders	2	BOX	\$0.00	\$0.00	\$4. 19	\$4.19	\$8.38	100/BOX
Scissors	4	PACK	\$0.00	\$0.00	\$16.25	\$16.25	\$65.00	2/PACK
Engineer's scale	5	EA	\$0.00	\$0.00	\$3.65	\$3.65	\$18.25	
Tacks	5	PACK	\$0.00	\$0.00	\$0.25	\$0.25	\$1.25	100/PACK
Post-it-notes (4"X6")	5	PACK	\$0.00	\$0.00	\$6.99	\$6.99	\$34.95	6/PACK
Post-it-notes (3"X4")	5	PACK	\$0.00	\$0.00	\$10.99	\$10.99	\$ 54.9 5	12/PACK
Post-it-notes (1.5"X2")	5	PACK	\$0.00	\$0.00	\$4.19	\$4.19	\$20.95	12/PACK
Mag-Lite Flashlight	5	EA	\$0.00	\$0.00	\$24.95	\$24.95	\$124.75	L=8.5"
Batteries (AA)	10	PACK	\$0.00	\$0.00	\$6.15	\$6.15	\$61.50	8/PACK
Batteries (AAA)	5	PACK	\$0.00	\$0.00	\$8.49	\$8.49	\$42.45	12/PACK
Batteries (C)	5	PACK	\$0.00	\$0.00	\$9.99	\$9.99	\$49.95	8/PACK
Soft Wastbaskets	4	EA	\$0.00	\$0.00	\$8.20	\$8.20	\$32.80	H19xW15xD11
55-gal Waste Containers	5	EA	\$0.00	\$0.00	\$62.95	\$62.95	\$314.75	
Paper towels	50	PACK	\$0.00	\$0.00	\$15.75	\$15.75	\$787.50	15/PACK
Trash bags	50	PACK	\$0.00	\$0.00	\$8.49	\$8.49	\$424.50	50/PACK
Broom	1	EA	\$0.00	\$0.00	\$9.19	\$9.19	\$9.19	
Dust pan	1	EA	\$0.00	\$0.00	\$5.15	\$5.15	\$5.15 \$5.15	
Disinfectant Cleaner	5	EA	\$0.00	\$0.00	\$6.59	\$6.59	\$32.95	
First Aid Kit	1	EA	\$0.00	\$0.00	\$26.10	\$26.10	\$26.10	
Emergency Eye Wash Station	1	EA EA	\$0.00	\$0.00 \$0.00	\$20.10 \$24.15	-	\$20.10 \$24.15	
Extension cord (50')						\$24.15	• •	
• ,	3	EA	\$0.00	\$0.00	\$19.90	\$19.90	\$59.70	
Locks (2")	10	EA	\$0.00	\$0.00	\$11.55	\$11.55 \$0.00	\$115.50	
Locks (3/4")	10	EA	\$0.00	\$0.00	\$8.25	\$8.25	\$82.50	
Shipping Allowance	1	LS	-	•	-	\$5,000.00	\$5,000.00	-
SUBTOTAL							\$11,999.45	

Common Co Capital Cost	sts Sub-Element	COST WORKSHIET
FIELD OFFI	CE SUPPLIES	COST WORKSHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01	
Subcontracto SUBTOTAL	or Profit	10% \$1,200 \$13,199
Prime Contra	actor Profit	10% \$1,319.94
TOTAL UNIT	r COST	\$14,519
Source of C	ost Data: Equipment and supplies from local vendors.	
Cost Adjust	ment Factor:	
	FACTOR: H&S Productivity (labor & equip)	NOTES: No labor involved, material costs
ľ	Escalation to Base Year	2001 material costs
	Area Cost Factor	No area cost factor applied; Not applicable
	Subcontractor Profit X	Assuming markup of 10%
	Prime Contractor Profit X	Assuming markup of 10%
		·

Common costs Capital Cost Sub-Element POST-CONSTRUCTION SUBMITTALS						COST	WORKSH	EE.
Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01								
Work Statement:								
Cost Analysis:								
DESCRIPTION Engineering	QTY 240	UNIT HR	LABOR \$75.00	EQUIP \$0.00	MTRL \$0.00	UNIT TOTAL \$75.00	TOTAL \$18,000.00	
Office Support Support staff Office Expenses SUBTOTAL	40 1	HR LS	\$40.00 \$0.00	\$0.00 \$0.00	\$0.00 \$2,500.00	\$40.00 \$2,500.00	\$1,600.00 \$2,500.00 \$22,100.00	
Subcontractor Overhead , SUBTOTAL Subcontractor Profit	•					5% 10%	\$1,105.00 \$23,205.00 \$2,320.50	
SUBTOTAL Contractor Overhead SUBTOTAL Contractor Profit						5%	\$25,525.50 \$1,276.28 \$26,801.78	
TOTAL UNIT COST						10%	\$2,680.18 \$29,481.95	
Source of Cost Data: Engineering judgemen								

.

	Sub-Element RAL EQUIPMENT & SUPPLIES						cos	T WORKSHI	EET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01	·			,				
Work Staten	nent: Assuming total time onsite of app 8 wks wellands restoration (5 wks						wks excavation	on/backfili;	
Cost Analys	is:								
DESCRIPTION	DN (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
Construction		4.0	EA	\$0.00	\$0.00	\$82.80	\$82.80	\$331.20	
lnstall/Remo	ve Dumpsters	2.0	EA	-	-	-	\$100.00	\$200.00	•
Dumpsters (•	17.0	MO	-	-	-	\$30.00	\$510.00	
	ve Water Coolers	2.0	EA	-	•	-	\$100.00	\$200.00	
Water Coole SUBTOTAL	r (2 Units)	17.0	МО			-	\$125.00	\$2,125.00 \$3,366.20	
DESCRIPTION	ON (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
SUV Rental		8.50	MO	\$0.00	\$0.00	\$720.00	\$720.00	\$6,120.00	
Pickup Truck	Rental	8.50	MO	\$0.00	\$0.00	\$720.00	\$720.00	\$6,120.00	
Generator 25	50KW	8.50	MO	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$25,500.00	
SUBTOTAL								\$37,740.00	
Area Cost Fa	ector						69%	\$26,940.60	
SUBTOTAL	(Local & Means)							\$29,407	
Subcontracto	or Overhead						5%	\$1,470	
SUBTOTAL								\$30,877.14	
Subcontracto SUBTOTAL	or Profit	,					10%	\$3,087.71 \$33,964.85	
DESCRIPTION	ON (Subcontractor Costs)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Weather Sta		9	MO	\$0.00	\$0.00	\$360.00	\$360.00	\$3,150.00	
Camera		35	WK	\$0.00	\$0.00	\$5.00	\$5.00	\$175.00	
Tool Box	•	9	MO	\$0.00	\$0.00	\$60.00	\$60.00	\$525.00	
CHRICIAL	(hasal Masas P. Cub)							\$3,850.00	
SUBTUTAL	(Local, Means & Sub)							\$37,814.85	
Contractor C SUBTOTAL	verhead			4		•	5%	\$1,890.74 \$39,705.60	
Contractor P	rofit						10%	\$3,970.56	
TOTAL UNIT	costs	-						\$43,676	
]									
Source of C									
	Local vendor and costs from inter- Building Construction Cost Data,	~	~ .						
Cost Adjust	ment Factor:								
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)				B - 42% I 454	or and 600	Equipment of	ot applicable	
1	,, ,,,	<u> </u>						• •	
l	Escalation to Base Year		100	Escalation	Factor of 1.	UV for base	year of 2001,	cost information 2000	
l	Area Cost Factor	X		0.69 locali:	zation factor	for 052 zip	code (Means) ·	
l	Subcontractor Overhead & Prof.	X	-	Assuming	markup of 16	0% for both	Overhead an	d Profit.	
ľ	Prime Contractor Overhead & Pro			_	•		Overhead an		
l	company cromond at 10			rwooming	unnup Of It	0 .01 00001	Cromond an	9 1 1 UAL	

COMMON C									
Capital Cost	t Sub-Element						SOOT	THOOKALI	
	US AIR MONITORING						COST	WORKSHE	ELI
Site:	Pownal Tannery Site								
Location:	Pownal, Vt								
Phase:	Feasibility Study							÷	
Base Year:	2001								
Date:	Apr-01				· 		,	— —	
Work Staten	ment.								
,,,,,,,	Continuous air monitoring around sit	ite perim	eter at 8 }	hrs/day and 5 r	davs/wk. C	enducted du	rina full imple	ementation	
İ	of each alternative.	~ ,	2	A	naye	Ø11000	mg .c	(I Ned and street	
i .									
Cost Analysi	-t-,					ė.			
6091 mm.,	is:		-						
ĺ									
							UNIT	•	
DESCRIPTIO	, ,	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
	etion detector - Rent	1	МО	\$0.00	\$0 .00	\$640.00	\$640.00	\$640.00	
Cal-gas Industrial Scie		1	EA	\$0.00	\$0.00	\$120.00	\$120.00	\$120.00	
	ernific MG140 gas meter	1	MO	\$0.00	\$0.00	\$400.00	\$400.00	\$400.00	
103L Cylinde SUBTOTAL	er of CO, H2S, O2, Pentane Cal gas	0.5	CYL	\$0.00	\$0.00	\$300.00	\$300.00	\$150.00	
2001011								\$1,310.00	
Subcontracto	or Overhead						5%	\$65.50	
SUBTOTAL	Toranious						J /U	\$1,375.50	
Subcontracto	or Profit						10%	\$1,375.50 \$137.55	
SUBTOTAL							,	\$1,513.05	
ŀ						-		Фиротопол	
	ON (Subcontractor)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
	es - Rent (3 pair)	1	MO	\$0.00	\$0.00	\$360.00	\$360.00	\$360.00	
	osol Monitor (5 Units)	1	MO	\$0.00	\$0.00	\$360.00	\$360.00	\$360.00	
Laborers (1 @		0.25	МО	\$8,800.00	\$0.00	\$0.00	\$8,800.00	\$2,200.00	
SUBTOTAL								\$2,920.00	
SUBTOTAL ((Local and Subcontractor)							\$4,433	-
Contractor Ov	المحالما						507		
SUBTOTAL	verneau						5%	\$221.65	
Contractor Pr	rofit						10%	\$4,654.70 \$465.47	
							f U / o	ֆ40 0.47	
TOTAL UNIT	COST/MO						,	\$5,120.17	
							•	ψυ,	
i			•						
i									
i									
i	`					•			
1.									
ı		-							
i									
i		•							
i of Cr	=								
Source of Co									
1	Costs for rental equipment from vend	Jors.							
					·				
Cost Adjustm	nent Factor:								
1					**	•			
ı	FACTOR:	-		NOTES:					
ı	H&S Productivity (labor & equip)			Level D					
	Escalation to Base Year	——————————————————————————————————————		Escalation F	ector of 1.0	¹∩ for hase yr	oor of 2001, c	ost information 2000	•
	Area Cost Factor	=				•	-	JSC BIROTHIGHT.	
		=				for 052 zip co			
	Subcontractor Overhead & Prof.	X		Assuming ma	arkup of 10°	% each for b	ooth Overhead	J and Profit.	
	Prime Contractor Overhead & Prof.	Х		Assuming m/	arkup of 10	% each for b	ooth Overhead	d and Profit.	

Alternative 5 Capital Cost CLEAR AND	Sub-Element					COST	WORKSHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01			,			
Work Staten	nent: Clear and grub Lagoons 1,2,3, 5 an hauling.	od the so	utheast co	omer of Lagoon 4 to faci	litate excav	ation, consolid	dation and
Cost Analys	iis:						
DESCRIPTION Heavy Brush SUBTOTAL	ON a without Grub, Chipping	QTY 11	UNIT ACRE	LABOR EQUIP \$909.73 \$1,055.00	MTRL \$0.00	UNIT TOTAL \$1,964.73	TOTAL \$22,243.49 \$22,243
Area Cost Fa	actor					69%	\$15,348.01
Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor C SUBTOTAL	or Profit				·	5% 10% 5%	\$767 \$16,115 \$1,612 \$17,727 \$886.35 \$18,613
Contractor P		•				10%	\$1,861 \$20,474.62
TOTAL UNIT	, 6667						
1							
Source of C	Cost Data: Environmental Remediation Cost I	Data, RS	Means, 6	th Edition, 2000			
Cost Adjust	tment Factor:						
/	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X		NOTES: Level D Escalation Factor of 1. 0.69 localization factor Assuming markup of 1 Assuming markup of 1	for 052 zip 0% for both	code (Means Overhead ar) ad Profit.

.

		·							
Alternative 5	A 1. El.				·				
	Sub-Element						COST	WORKSHEE	: -
EKOSION-D	UST CONTROL						0001	VVOINTOFILE	
Citar	Downal Tannani Cita								
Site:	Pownal Tannery Site Pownal, Vt								1
Location: Phase:	Feasibility Study							•	
Base Year:	2001								
Date:	Apr-01								
Date.	Αρι-01						· · · <u>· · · · · · · · · · · · · · · · </u>	····	-1
Work Staten									l
	Dust suppression/Pass cost at \$59								ı
	of excavation - approx. 20 weeks						installed alon	ig access	
	road bordering river. Trench exca	vation vo	lume for s	ilt fence take	an as 1800°.	x 2' x 0.5'.			
						-			
0	t								
Cost Analys	is:								
							12507		
DESCRIPTION	M (Moane)	OTY	SINUT	LABOR	FOUID	MTOL	UNIT	TOTAL	ı
	ck - dust suppression/Pass	QTY 125	UNIT PASS	LABOR \$0.00	EQUIP \$0.00	MTRL \$0.00	TOTAL	TOTAL	
	oly, 3' high, adverse conditions	1800	LF	\$0.00	\$0.00	\$0.00	\$166.89 \$0.67	\$20,861.25 \$1,206.00	
Hay Bales, S		1800	LF	\$0.21	\$0.07	\$2.00	\$2.28	\$4,104.00	
	emove Hay Bales (maintenance)	22	TONS	\$178.00	\$57.50	\$50.00	\$285.50	\$6,281.00	ļ
	vation, 6" depth	70	CY	\$2.73	\$1.35	\$0.00	\$4.08	\$285.60	ı
Sedimentation	· · · · · · · · · · · · · · · · · · ·	0	ĹŠ	\$0.00	\$0.00	\$0.00	\$965.12	\$0.00	
SUBTOTAL -	•			40.00	\$ 0.00	Ψ0.00	\$500.12	\$32,738	
								ψ υΣ,, υ υ	ł
Area Cost Fa	ictor						69%	\$22,589	
								,,	- 1
DESCRIPTION	ON (Locat)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL.	TOTAL	- 1
Water		6	MO	\$0.00	\$0.00	\$0.00	\$50.00	\$312.50	- 1
SUBTOTAL ((Local and means)							\$22,902	ı
i									
Subcontracto	or Overhead						5%	\$1,145	- 1
SUBTOTAL								\$24,047	ł
Subcontracto	r Profit						10%	\$2,405	ı
SUBTOTAL								\$26,451	- 1
Contractor O	verhead ·						5%	\$1,322.57	1
SUBTOTAL	5.							\$27,774	٠. ا
Contractor Pr	rotit						10%	\$2,777	1
									- 1
TOTAL UNIT	COST							\$30,551.33	ı
									ı
									ı
						•			
									ŀ
Source of Co	ost Data:								ı
	Building Construction Cost Data, F	RS Means	. 58th Edi	ition. 2000: I	ocal cost es	stimate from	an ongoing r	project.	ŀ
	Environmental Remediation Cost I							,	
									- 1
									- 1
Cost Adjustr	nent Factor:								1
								•	- 1
	FACTOR:			NOTES:					-
	H&S Productivity (labor & equip)			Level D					ı
	Escalation to Base Year			Escalation 1	Factor of 14	nn for bace s	wear of 2001	cost information 2000	- [
		!!!					,		- [
	Area Cost Factor	X		0.69 localiz	ation factor	for 052 zip o	code (Means)		- [
	Subcontractor Overhead & Prof.	X		Assumina r	narkup of 1	0% for both	Overhead and	d Profit.	- [
		₩			•				ļ
	Prime Contractor Overhead & Prof	LX		Assuming r	narkup of 19	ow iot both	Overhead and	g MONL	- 1

, common

Common Co	1							****
	sub-Element							
	TION TRAPS						COST	WORKSHEE
SEDIMENTA	TION TIONS						0001	WOLUMOTICE
a	B 17 60							
Site:	Pownal Tannery Site							
Location:	Pownal, Vt							
Phase:	Feasibility Study							
Base Year:	2001							
Date:								
Work Staten								
į.	Basin size of 50'x25'x6'. Inlet/Out				5. FX 6X 6	Assuming 6	" dia PE pipe.	-
1	Marked up for O&P on erosion co	ntrol cost v	vorksheel					
ł								
•								
Cost Analys	is:							
l								
							UNIT	
DESCRIPTION		QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
Geotextile no	n-woven	2.67	SY	\$0.00	\$0.00	\$0.00	\$1.50	\$4.00
1.5" Crushed	Stone	10	TON	\$0.00	\$0.00	\$5.50	\$5.50	\$55.00
- Delivery		1	HR	\$0.00	\$0.00	\$0.00	\$40.00	\$40.00
SUBTOTAL								\$99.00
1								•
DESCRIPTION	ON (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
Excavation		278	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$555.56
	Riprap, Heavy (25 to 500 lb)	6.	CY	\$3.00	\$2.38	\$15.78	\$21.16	\$126.96
	Polyvinyl Chloride Pipe	20	LF	\$1.72	\$4.59	\$2.87	\$9.18	\$183.60
	olymay, emonder spa	2.0	_,	V1.72	44.00	Ψ2.01	ψ5.10	\$866.12
								9000.12
SUBTOTAL								\$965.12
000101712								\$300.12
Į								
1								
l								
1								
Į								
1		•						
1								
1								
1								
}								
ì								
I								
Source of C	nst Natar							
Course of C		o installad	on 2/0/0	4 Caltastie	aton from !-	aal be		ad an 9/97/04
i	Subcontractor estimate - geotextil					car borrow:	source obtain	led on 2/2/191.
	Environmental Remediation Cost				00			
	Building Construction Cost Data, I		•					
	Marked up for O&P on element sh	neet for ero	sion cont	rol measures	5.			
Cost Adjust	nent Factor:							
1	FACTOR:			NOTES:			•	
1	H&S Productivity (labor & equip)			Level D				
İ	Escalation to Base Year			Escalation	Eactor of 4	OO for book	VOOR OF SOLE	cost information 2000
l		ᆜ		cocalation .	i actor or 1.	oo ioi base	year or 2001	, cost information 2000
1	Area Cost Factor			0.69 localiz	ation factor	for 052 zip	code (Means	s)
	Subcontractor Overhead & Prof.	$\overline{}$		Accuming	narkus of 4	0% pack fo	r hoth Overh	ead and Profit.
1.				-	•			
l	Prime Contractor Overhead & Pro	f		Assuming r	narkup of 1	0% each fo	r both Overhe	ead and Profit.
I								

Common Cos									
Capital Cost S	Sub-Element / ACCESS ROADS (COST PER 10	W E)					COST	WORKSH	łEET
TEIRFORAK	ACCESS ROADS (COST PER TO	ULF)					0001	VVOINGI	16.4.1
Site: I	Pownal Tannery Site								
Location:	Pownal, Vt								
	easibility Study								
Base Year: 2									
Date: /	4pr-01								
Work Statem	ent:								
,	nstall temporary access roads for tra	ansport of	excavate	ed materials.	1 foot of 4"	to 6" ROC.			
Coat Amabas	·								
Cost Analysi	S:						UNIT		
DESCRIPTIO	N (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Common Fill -	• •	0	TON	\$0.00	\$0.00	\$3.00	\$3.00	\$0.00	
Crushed Ston	e	48.1	TON	\$0.00	\$0.00	\$5.00	\$5.00	\$240.74	
SUBTOTAL							•	\$240.74	
DESCRIPTIO	· · · · · · · · · · · · · · · · · · ·	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL.	
Excavation of Loading of Fill		0	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$0.00	
_	o at pit 0 mi round trip	0	CY CY	\$0.39	\$1.91	\$0.00	\$2.30	\$0.00	
Excavation of	•	37	CY	\$1.66 \$0.34	\$5.10 \$1.66	\$0.00	\$6.76 \$2.00	\$0.00	
Loading of RC		37	CY	\$0.39	\$1.00	\$0.00 \$0.00	\$2.30	\$74.07 \$85.19	
	10 mi round trip	37	CY	\$1.66	\$5.10	\$0.00	\$6.76	\$250.37	
	oll subbase, small area	222	SY	\$0.43	\$0.63	\$0.00	\$1.06	\$235.56	
,	act ROC, 6" lifts	222	SY	\$0.31	\$0.59	\$0.00	\$0.90	\$200.00	
Geotechnical	-	1	EΑ	\$67.67	\$0.00	\$86.98	\$154.65	\$154.65	
SUBTOTAL								\$999.84	
Area Cost Fac	rtor						con/	freno.	
	Local and Means)						69%	\$690 \$931	
_	·	•						400.	
Subcontractor	Overhead						5%	\$46.53	
SUBTOTAL	B. F.							\$977.16	
Subcontractor	Profit						10%	\$97.72	
SUBTOTAL								\$1,074.87	
DESCRIPTIO	N (Subcontractor)	QTY	TINU	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
In-Place Dens	ity (Means)	1	EA	\$0.00	\$0.00	\$0.00	\$26.68	\$26.68	
Geotextile		222	SY	\$0.00	\$0.00	\$0.00	\$1.50	\$333.33	
SUBTOTAL								\$360.02	
SUBTOTAL (I	ocal, Means and Sub)							\$1,434.89	
Contractor Ov	erhead						5%	\$71.74	
SUBTOTAL							370	\$1,506.63	
Contractor Pro	ofit .						10%	\$150.66	
TATAL LINUT	000740015								
TOTAL UNIT	COS1/100 EF							\$1,657.30	
Source of Co	st Data: Soil material quotes from local borro	v source							
-	de la constant de la	17 30di 00.							
Cost Adjustm	ent Factor:								
	FACTOR:			NOTES:					
F	I&S Productivity (labor & equip)			Level D					
	scalation to Base Year	\equiv		Escalation !	Eactor of 4.4	On for book	waar of 2004	cost information :	2000
		ليط			•				2000
Ą	rea Cost Factor	X		0.69 localiza	ation factor	for 052 zip	code (Means)	•	
S	subcontractor Overhead & Prof.	Х		Assuming n	narkup of 10	0% each for	both Overhe	ad and Profit.	
Þ	rime Contractor Overhead & Prof.	X		•	-				
•	oomiostor oronicati (x r ft).			ഹാവലിയ് 🏻	narkup Ot 10	270 COUNTION	ион Оление	ad and Profit.	

1 Secretaria

Common Co	osts : Sub-Element								
	RY ACCESS ROADS (COST PER 10)	OLF)					COST	WORKSH	EET
Site:	Pownal Tannery Site								
Location:	Pownal, Vt								
Phase:	Feasibility Study								
Base Year:									
Date:	Apr-01								
Work State	ment: Install temporary access roads into la	agoons foi	transpor	t of excavate	d materials	to on-site st	ockpile areas		•
Cost Analy	sis:								
DESCRIPTI	ON (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
	il - Subgrade	289	TON	\$0.00	\$0.00	\$3.00	\$3.00	\$866.67	
Crushed Sto		48.1	TON	\$0.00	\$0.00	\$5.00	\$5.00	\$240.74	
SUBTOTAL								\$1,107.41	
DESCRIPTI	ON (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Excavation		222	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$444.44	
Loading of F		222	CY	\$0.39	\$1.91	\$0.00	\$2.30	\$511.11	
	10 mi round trip	222	CY	\$1.66	\$5.10	\$0.00	\$6.76	\$1,502.22	
	of ROC at pit	37	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$74.07	
Loading of F	C, 10 mi round trip	37 37	CY CY	\$0.39 \$1.66	\$1.91 \$5.10	\$0.00 \$0.00	\$2.30 \$6.76	\$85.19 \$250.37	
	I roll subbase, small area	222	SY	\$0.43	\$0.63	\$0.00	\$1.06	\$235.56	
	npact ROC, 6" lifts	222	SY	\$0.31	\$0.59	\$0.00	\$0.90	\$200.00	
Geotechnica	el .	1	EΑ	\$67.67	\$0.00	\$86.98	\$154.65	\$154.65	
SUBTOTAL								\$3,457.61	•
Area Cost F SUBTOTAL	actor (Local and Means)	•					69%	\$2,386 \$3,493	
Subcontract	or Overhead						5%	\$174.66	
SUBTOTAL								\$3,667.82	
Subcontract SUBTOTAL							10%	\$366.78 \$4,034.60	-
	ON (Subcontractor)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
In-Place De Geotextile	nsity (Means)	1 222	EA SY	\$0.00 \$0.00	\$0.00	\$0.00	\$26.68 \$1.50	\$26.68 \$333.33	
SUBTOTAL		222	31	30.00	\$0.00	\$0.00	φ1.50	\$360.02	
SUBTOTAL	(Local, Means and Sub)							\$4,394.62	
Contractor (Overhead						5%	\$219.73	
SUBTOTAL							070	\$4,614.35	
Contractor f	Profit						10%	\$461.43	
TOTAL UNI	T COST/100 LF							\$5,075.78	
Source of 0	Cost Data:								
	Soil material quotes from local borro	w source.							
Cost Adjus	tment Factor:								
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)			Level D					
	Escalation to Base Year			Escalation	Factor of 1.	00 for base	year of 2001,	cost information 2	2000
	Area Cost Factor	X				•	code (Means)		
1						•	,		
	Subcontractor Overhead & Prof.	<u></u>		Assuming i	markup of 1	u% each for	poth Overhe	ad and Profit.	
	Prime Contractor Overhead & Prof.	Х		Assuming	markup of 1	0% each for	both Overhe	ad and Profit.	-

..

COMMON C	COST							
	l Sub-Element						COST	T WORKSHEE
Site: Location: Phase: Base Year: Date:	Pownal Fannery Site Pownal, Vt Feasibility Study							***************************************
Work Stater		lift over 10	e correst	conds to 20 li	tor rough	th 2 acres,		
Cost Analys		IR G.S.	Communication	Jilus w	IS IOI roug	y z acion.		
		~ ~	*****				UNIT	
	ON (Local) I to Elev. 508' ev. 510' (1.5" crushed)	QTY 30,976 7,744	UNIT TON TON	\$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00	MTRL \$3.00 \$5.50	TOTAL \$3.00 \$5.50	**TOTAL \$92,928.00 \$42,592.00 \$135,520.00
Spreading in	of Fill at pit	QTY 25,813 25,813 25,813 25,813	UNIT CY CY CY CY	\$0.34 \$0.39 \$1.66 \$0.30	EQUIP \$1.66 \$1.91 \$5.10 \$0.76	MTRL \$0.00 \$0.00 \$0.00 \$0.00	\$2.00 \$2.30 \$6.76 \$1.06	TOTAL \$51,626.67 \$59,370.67 \$174,498.13 \$27,362.13
	州, 6° tO 12° MRS, VIOTAUTIY TOTES	25,813	CY	\$0.40	\$1.15	\$0.00	\$1.55	\$40,010.67
SUBTOTAL								\$352,868.27
Area Cost Fa SUBTOTAL (actor (Local and Means)					-	69%	\$243,479 \$378,999
Subcontracto SUBTOTAL Subcontracto SUBTOTAL							5% 10%	\$18,949.96 \$397,949.06 \$39,794.91 \$437,743.97
DESCRIPTIO In-Place Dens	ON (Subcontractor) sity (Means)	QTY 40	UNIT EA	LABOR \$0.00	EQUIP \$0.00	MTRL \$0.00	TOTAL \$26.68	TOTAL \$1,067.29
SUBTOTAL ((Local, Means and Sub)							\$438,811.26
Contractor Ov SUBTOTAL Contractor Pr	,						5% 10%	\$21,940.56 \$460,751.82 \$46,075.18
TOTAL UNIT	cost							\$506,827.00
Source of Co	ost Data: Local costs obtained from borrow s Building Construction Cost Data, R	source on 2/ RS Means, 5	/27/01. 58th Editic	on, 2000				
Cost Adjustn	nent Factor:							
•	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor						year of 2001, o	cost information 2000
	Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X		Assuming m	narkup of 10°	0% each for t	both Overhea both Overhea	ad and Profit

Common Co	sts								
Capital Cost	Sub-Element							TWODIO	
DECONTAM	INATION PAD - HEAVY EQUIPMENT	(PER	EACH)				COS	T WORKS	HEEL
	0 17 00				•				
Sīte:	Pownal Tannery Site								
Location:	Pownal, Vt								
Phase:	Feasibility Study								
Base Year: Date:	2001 Apr-01								
		•							
Work Staten	nent: Pad size 25 x 65; thickness of 8 inch	ies.					ı		
Cost Analys	īs:						UNIT		
DESCRIPTION	ИС	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Construction	n:								
Concrete pac	1 - 8"	40	· CY	\$78.00	\$0.98	\$116.00	\$ 194.98	\$7,823.27	
Gravel base	- 6"	30	CY	\$1.52	\$1.62	\$18.43	\$21.57	\$649.10	
Curb		180	LF	\$0.68	\$0.00	\$1.06	\$1.74	\$313.20	
	onstruction, incl ex & gravel, pit	75	CF	\$0.46	\$0.16	\$0.56	\$1.18	\$88.50	
With 12" grav SUBTOTAL	vel collar, 12" pipe, corrugated, 16ga	180	LF	. \$8.25	\$2,90	\$11.90	\$23.05	\$4,149.00 \$13,023.07	
Area Cost Fa	ostor					•	69%	\$8,986	
SUBTOTAL	actor						0376	\$22,009	
Subcontracto	or Overhead						5%	\$1,100.45	
SUBTOTAL								\$23,109.44	
Subcontracto	or Profit						10%	\$2,310.94	
SUBTOTAL								\$25,420.38	
Contractor O	verhead						5%	\$1,271.02	
SUBTOTAL								\$26,691.40	
Contractor P	rofit					÷	10%	\$2,669.14	
TOTAL UNIT	COST							\$29,360.54	
Operation:	octora Troch Dumo '280 CDM	4	DAY	£10.41	to io	¢=0.40	\$69.60	\$69.6 0	
4 Dia Collina	actor's Trash Pump, 300 GPM	1	DAY	\$10.41	\$0.00	\$59.19	\$05.00	\$05.00	
Area Cost Fa SUBTOTAL	ector						69%	\$48 \$118	
Subcontracto	or Overhead						5%	\$5.88	
SUBTOTAL Subcontracto	or Profit						10%	\$123.51 \$12.35	
SUBTOTAL	of Front						1070	\$135.86	
Contractor O	verhead						5%	\$6.79	
SUBTOTAL						•		\$142.65	
Contractor P	rolit						10%	\$14.26	
TOTAL UNIT	COST							\$156.91	
Source of C	ost Datar						-		
Source of C	Building Construction Cost Data, RS Environmental Remediation Cost Data			•	00				
Cost Adjust	ment Factor:		,						
COSt Aujust	ment ractor:								
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)	 		Level D	F/ 1:	DO 6 1			. 2004
	Escalation to Base Year	ᆜᆜ						, cost information	LAUUU
	Area Cost Factor	X		0.69 localiz	ation factor	r for 052 zip o	ode (Means	s)	
	Subcontractor Overhead & Prof.	Х		Assuming (narkup of 1	0% each for	both Overho	ead and Profit	
	Prime Contractor Overhead & Prof.	X		Assuming I	markup of 1	0% each for	both Overho	ead and Profit.	
Ī									

Common Co									
DECONTAM	Sub-Element IINATION PADS - PERSONNEL						COST	WORKS	HÉET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study								
Work Staten									
	Pad size 6 x 6; thickness of 4 inc	hes							
Cost Analys	is:						-		
					-				
DESCRIPTION Concrete - 4" Gravel base Curb SUBTOTAL	•	QTY 0.44 0.44 24	UNIT CY CY LF	\$78.00 \$1.52 \$0.68	EQUIP \$0.98 \$1.62 \$0.00	MTRL \$116.00 \$18.43 \$1.06	UNIT TOTAL \$194.98 \$21.57 \$1.74	TOTAL \$86.66 \$9.59 \$41.76 \$138.00	
Area Cost Fa SUBTOTAL	ctor						69%	\$95 \$233	`
Subcontracto SUBTOTAL Subcontracto SUBTOTAL Contractor Of SUBTOTAL Contractor Pr	r Profit verhead				·		5% 10% 5% 10%	\$11.66 \$244.89 \$24.49 \$269.38 \$13.47 \$282.85 \$28.28	
TOTAL UNIT	COST						1070	\$311.13	
Source of Ca	ost Data: Building Construction Cost Data, Environmental Remediation Cost	RSMeans, Data, RS M	58th Editio Means, 6th	on, 2000 i Edition, 200	10 -				
Cost Adjustn						•			
,	FACTOR; H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof.	X X		0.69 localiza	ition factor i	for 052 zip c	ode (Means)	cost informatio) ad and Profit.	n 2000
	Prime Contractor Overhead & Pro	of. X		Assuming m	arkup of 10	% each for b	oth Overhe	ad and Profit.	

Common Costs		-					-
Capital Cost Sub-Element DEWATER STANDING WATER IN LAGOONS						COST	WORKSHEET
Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01	·						
Work Statement:							
One 300 GPM pump operating for 2	?4hrs/day	: Pumpir	ng assumed t	to take 1 wer	ak to compl	ete.	
Cost Analysis:							
DESCRIPTION 4" Dia Contractor's Trash Pump, 300 GPM Trash pump rental Hose, water, suction w/coupling, 20'L, 4" dia Discharge hose w/coupling, 50'L, 4" dia Laborers SUBTOTAL	QTY 7 0.38 0.38 0.38 7	UNIT DAY MO MO MO DAY	LABOR \$10.41 \$0.00 \$0.00 \$0.00 \$500.00	EQUIP \$0.00 \$825.00 \$180.00 \$120.00 \$0.00	MTRL \$59.19 \$0.00 \$0.00 \$0.00 \$0.00	UNIT TOTAL \$69.60 \$825.00 \$180.00 \$120.00 \$500.00	TOTAL \$487.20 \$309.38 \$67.50 \$45.00 \$3,500.00
Area Cost Factor SUBTOTAL						69%	\$3,042 \$7,451
Subcontractor Overhead SUBTOTAL Subcontractor Profit SUBTOTAL Contractor Overhead SUBTOTAL Contractor Profit TOTAL UNIT COST/ROUND						5% 10% 5% 10%	\$372.57 \$7,824 \$782 \$8,606.29 \$430.31 \$9,036.61 \$903.66
Source of Cost Data: . Construction Cost Data, RS Means Environmental Remediation Cost D					om an ongoi	ing project.	
Cost Adjustment Factor:							
FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X X		0.69 localiz Assuming r	ation factor t markup of 16	for 052 zip o 0% each for	code (Means) both Overhe	, cost information 2000) ead and Profit. ead and Profit.

Capital Cost	st Sub-Element					•			
	EAT. OF STANDING WATER IN LAGO	ONS				-	COST	WORKS	HEET
Site:	Pownal Tannery Site							_	
Location:	Pownal, Vt								
Phase:	Feasibility Study							•	
Base Year:	2001								
Date:	Apr-01	·							
Work Stater									
	Treat standing water in Lagoons 1, 2 a	and 5 for co	nstruction	activities, co	osts develo	ped based on	the following	j:	
	2,000 lbs carbon/100,000 gals; 20,000 holds 1,000 lbs of carbon and treats 5	J gal/Frac u	ank storage	e 8 carbon v	essels (2 v	/essels/Carbor	n unit); each v	vessels	
	holds 1,000 lbs of carbon and treats 5 operating for 24 hrs. Time to complete	Uya⊮maro ≏=15 wko	Tilow, rre Dischar	:8imeni voiui eo troalad w	Me: 2,84 i ,i eter to 2 or	.000 gais; pumi	ping rate of 30	00 gal/min	
	lined with geotextile and backfilled with	h riorap. E	stimate as	stimes no ar	אנכונט ביטו מנוחלwater	recharge and	≀ganenes (∠v Ioolvone	x5 x5 j	
	dewatering event for duration of project	ct.	Jun 1900	Stariou iso S.	Outros.	recining and	Only One		
Cost Analys									
							UNIT		
DESCRIPTIO	ON (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
	egmentation Tanks	0.25	MO	\$0.00	\$0.00	\$30,000.00			
	rbon Equipment & Operation (8 Units)	1.00	WK -	\$0.00	\$0.00	\$12,000.00			
Dewatering E	• •	0.25	MO	-		-	\$1,000.00	\$250.00	
Material Cos	t - Carbon	30000	LB	\$0.00	\$0.00	\$ 0.65	\$0.65	\$19,500.00	
Delivery Disposal of C	*arhon	· 1 30000	LS	÷0.00	- 	#1.00	\$10,000.00		
Geotextile	MIDDIE	30000 22	LB SY	\$0.00	\$0.00	\$1.00	\$1.00 \$1.50	\$30,000.00 \$33.33	
			٥.	-	-	•	\$1.50	\$79,283.33	
DESCRIPTK	TAI /Maanel							• - • • - •	
Analytical Te	•	12	EA	\$0.00	\$0.00	£4 £45 00	£4 E4E 00	£40 E40 00	
	Riprap, Light (10 to 100 lb)	37	CY	\$3.00	\$0.00 \$2.38	\$1,545.00 \$15.06	\$1,545.00 \$20.44	\$18,540.00 \$757.04	
	, , , , ,		- -	*****	V -1.00	Ψ10.00	ψε.υ. τ	\$19,297.04	
Area Cost Fa	ector						69%	\$13,315	
SUBTOTAL ((Local & Means)							\$92,598.29	
Subcontracto	or Overhead						5%	\$4,629.91	
SUBTOTAL	•						- • •	\$97,228	
Subcontracto	r Profit						10%	\$9,723	
SUBTOTAL								\$106,951.02	
Contractor O SUBTOTAL	vernead						5%	\$5,347.55	
SUBTUTAL Contractor Pr	rofit						2007	\$112,298.57	
Communica	OIII						10%	\$11,229.86	
TOTAL UNIT	COST/WK							\$123,528	
Source of Co	ost Data:		•		•				
	Local costs from an ongoing project; G	eotextile e:	stimate fro	m local vend	Jor.			•	
	Construction Cost Data, RS Means, 58 Environmental Remediation Cost Data,	8th Edition,	2000; Loca	al cost estima	ate from ar	n ongoing proje	ect.		
Cost Adjustn	nent Factor:								•
	FACTOR:			NOTES.					
	H&S Productivity (labor & equip)			NOTES: Level D					
	Escalation to Base Year							م بر مدد	- 8.5
	<u> -</u>			Escalation F	-actor of 1.	.00 for base ye	ear of 2001, cr	ost information 2	.000
	Area Cost Factor	X		0.69 localiza	ation factor	r for 052 zip co	ide (Means)		
	Subcontractor Overhead & Prof.	X		Assuming m	narkup of 1	10% each for b	oth Overhead	I and Profit.	ļ
	Prime Contractor Overhead & Prof.	Х		Assuming m	narkup of 1	10% each for b	oth Overhead	I and Profit.	

Alternative 5	Sub-Element							
Capital Cost EXCAVATIO							COST	r worksheet
Site: Location: Phase: Base Year: Date:	Pownat Tannery Site Pownat, Vt Feasibility Study 2001 Apr-01							
Work Staten								
Work Guiter	Estimated time to complete excavat approx. 60 CY/hr/excavator, two exc (unsaturated) = 42,500 CY. Volume Truck bed liners estimated at 1/day	cavators . i	Excavate Il increase	d volume (sa ed by 20% to	turated) = 3	31,100 CY. E		•
Cost Analys	is:							
DESCRIPTIO		QTY 2,500	UNIT EA	LABOR \$0.00	EQUIP \$0.00	MTRL \$28,50	UNIT TOTAL \$28.50	• TOTAL \$71,250.00
32 Ft Dump Truck bed co	Fruck, 6 mil liner, disposable vers	50,000	SY	\$0.00	\$0.00	\$1.53	\$1.69	\$84,500.00
Stripping top	soil & stockpiling, sandy loam	•	,					•
400 HP doz Excavation -	er, adverse conditions Level B	10,648 29,411	CY	\$0.16 \$0.48	\$0.70 \$2.66	\$0.00 \$0.00	\$0.86 \$3.14	\$9,157.28 \$92,313.87 Level B
Excavation -	Level D	58,909	CY	\$0.40	\$1.66	\$0.00	\$2.00	\$117,818.88
	watering pads (saturated material)	37,320	CY	\$0.63	\$1.55	\$2.18	\$4.36	\$162,715.20
Spread on de SUBTOTAL	ewatering pads	37,320	CY	\$0.48	\$2.66	\$0.00	\$2.00	\$74,640.00 Level B \$612,395.23
Area Cost Fa	actor						69%	\$422,553
Subcontracto	or Overhead						5%	\$21,127.64
SUBTOTAL Subcontracto	or Profit	•		-			10%	\$443,680 \$44,368.03
SUBTOTAL	A I TON						1070	\$488,048
Contractor O	verhead						5%	\$24,402.42
SUBTOTAL Contractor P	rofit .						10%	\$512,451 \$51,245
								\$563,695.87
		-						
								-
Source of C	ost Data: Building Construction Cost Data, Rt Environmental Remediation Cost D)			
Cost Adjust	ment Factor:							ar
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor	X		Escalation	Factor of 1.		year of 2001	6 Labor & 60% Equipment , cost information 2000
	Subcontractor Overhead & Prof.	X				0% for both	-	•
	Prime Contractor Overhead & Prof.	<u>===</u>		-	•	0% for both		

Alternative 5	Alternative 5									
Capital Cost ODOR SUPP	Sub-Element							COST	WORKS	SUEET
ODOK SUFF	KESSANI					·		<u>0031</u>	WORKS)UEC I
Site: Location: Phase: Base Year:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001									
Date:	Apr-01								-	-
					··		· · · · · · · · · · · · · · · · · · ·			
Work Staten	ent: Application of foam odo	r suppressari	al during	g excavatio	л of contar	ninated mal	erial,			
Cost Analysi	is:									
DESCRIPTIO Equipment Re Labor Material cost SUBTOTAL			QTY 5 20 5	UNIT MO WK 1800 LBS	LABOR \$2,600.00	EQUIP \$2,000.00 - -	MTRL - \$1,478.00	UNIT TOTAL \$2,000.00 \$2,600.00 \$1,478.00	TOTAL \$10,000.00 \$52,000.00 \$7,390.00 \$69,390.00	·
					·					
							-			
Contractor Ov SUBTOTAL Contractor Pri								5% 10%	\$3,469.50 \$72,859.50 \$7,285.95	
TOTAL UNIT	COST								\$80,145.45	İ
i •										
	,									
Source of Co	st Data: Equipment and material (costs from a	n ongoi	ng project.						
Cost Adjustm	ent Factor:							_		
	FACTOR:				NOTES:		•			
ı	H&S Productivity (labor 8	equip)				% Labor & 6	60% Equipme	ent		j
	Escalation to Base Year	- · · · ·	=		•				cost information	2000
	Area Cost Factor		=				o ioi hase y	acus 2001,	cost nacimigailiti	2000
		Prof □			tot applicat					-
	Subcontractor Overhead		<u>×</u>				% for both O			
. 1	Prime Contractor Overhe	ad & Prof.	X	£	kssuming m	arkup of 10	% for both O	verhead and	d Profit.	

Alternative 5 Capital Cost HAULING &	Sub-Element						cos	T WORKSHEET	
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								
Work Staten	nent: Estimated time to complete excavati approx. 60 CY/hr/excavator, two exc (unsaturated) = 42,500 CY. Cost de	avators . Exc	cavated v	olume (satu	rated) = 31,1	100 CY. Exc.	avated volu	ime	
Cost Analys	sis:								
DESCRIPTION Loading onto Hauling mate Disposal	ON o trucks from stockpite eríal to disposal facility	QTY 55,980 110,400 110,400	UNIT TON TON TON	LABOR	EQUIP	MTRL :	UNIT TOTAL \$5.00 \$30.00 \$60.00	TOTAL \$279,900.00 \$3,312,000.00 \$6,624,000.00	
SUBTOTAL								\$10,215,900.00	
·									
SUBTOTAL Contractor C							5%	\$510,795.00 \$10,726,695.00	
SUBTOTAL Contractor P	Profit						10%	\$1,072,670	
								\$11,799,364.50	
				•		; ;			
	. •		•						
Source of C	Cost Data: Quotes/estimates received from dis	posal facility	and trans	porter based	on haul dis	lance.			
Cost Adjust	tment Factor:						•		
	FACTOR: H&S Productivity (labor & equip)			NOTES:	Factor of 4	00 for base v		Locat information 2000	
	Escalation to Base Year Area Cost Factor			Escalation Factor of 1.00 for base year of 2001, cost information 2000 0.69 localization factor for 052 zip code (Means)					
	Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X				0% for both (0% for both (
1	The second section of the section of the sect				, - ·		•		

Common Co								
	t Sub-Element NG STRUCTURES						COST	WORKSHEE
Site: Location: Phase: Base Year: Date;	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01							
Work Staten		····						
	Construction costs for a dewatering treatment.) structur	e, 30° x 40	У, to store sa	iturated con	itaminated m	aterial before	>
Cost Analys	sis:							
~ ~~ ~ PIDTI	== <u>0</u>	~~~					UNIT	
DESCRIPTION Perimeter Be	ON (Local) erm (12" height min) Construction	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
	Material - Fill	53.9	TON	\$0.00	\$0.00	\$3.00	\$3.00	\$161.78
DESCRIPTIO		QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
Fine grading	of subsurface to slope to low point	133	SY	\$0.39	\$0.50	\$0.00	\$0.89	\$118.67
Concrete Rai Perimeter Be	amp(s) erm (12" height min) Construction	2	EA	\$203.93	\$0.00	\$318.26	\$522.19	\$1,044.38
SUBTOTAL	Spread/Compact, 6" lifts	373	SY	\$0.31	\$0.59	\$0.00	\$0.90	\$336.00 \$1,499.05
Area Cost Fa							69%	\$1,034
SUBTOTAL	(Means and Local)							\$1,196
Subcontracto SUBTOTAL	r Overhead						5%	\$59.81
Subcontracto SUBTOTAL	я Profit						10%	\$1,256 \$126 \$1,381.52
	ON (Subcontractor)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
_	ne Liner (40mil thickness min) onwoven, 12oz	1200 133	SF SY	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$0.00	\$1.00 \$1.50	\$1,200.00 \$200.00
					•	• -	•	\$1,400
SUBTOTAL ((Local, Means and Sub)							\$2,781.52
Contractor O	verhead						5%	\$139.08
SUBTOTAL Contractor Pr	rofit '	\$					10%	\$2,920.59 \$292.06
TOTAL UNIT	COST			÷			•	\$3,213
Source of Co	ost Data: Construction Cost Data, RS Means, Environmental Remediation Cost Da Installed costs from local subcontract	ata, RS N	lition, 200 Means, 6t	0. h Edition, 20	00			
Cost Adjustr	ment Factor:							
	FACTOR:			NOTES:				
	H&S Productivity (labor & equip)				leted under	r Level D con	iditions	
	Escalation to Base Year			Escalation F	Factor of 1.5	00 for base y	ear of 2001,	cost information 2000
	Area Cost Factor	X		0.69 localiza	ation factor	for 052 zip co	ode (Means))
	Subcontractor Overhead & Prof.	X		Assuming n	narkup of 1/	0% each for	both Overher	ad and Profit.
	Prime Contractor Overhead & Prof.	X		Assuming n	narkup of 1/	0% each for f	both Overher	ad and Profit.

Alternative 5								
Capital Cost : COLLECTIO	Sub-Element N & TREATMENT OF LEACHATE	:					COST	WORKSHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01	<u> </u>	_					
Work Staten	ent:	-						
	Estimated time to complete excar monitoring for compliance 40 CFI						•	
Cost Analys	is:							
Rental of Car Material Cost	gmentation Tanks bon Equipment & Operation I - Carbon Ition of Frac. Tanks	QTY 5 20 16000 2 16000	UNIT MO WK LB EA LB	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	MTRL \$3,000.00 \$1,500.00 \$0.65 \$1,000.00 \$1.00	UNIT TOTAL \$3,000.00 \$1,500.00 \$0.65 \$1,000.00 \$1.00	\$10,400.00
DESCRIPTION Analytical Te Odor Suppre Hay Bales, S Waste Pile O SUBTOTAL	sting ssant taked over, 135lb Tear	QTY 10 85 9600 2145	UNIT EA TON LF SY	\$0.00 \$0.00 \$0.21 \$0.16	\$0.00 \$0.00 \$0.07 \$0.00	MTRL \$1,545.00 \$7.50 \$2,00 \$1.53	TOTAL \$1,545.00 \$7.50 \$2.28 \$1.69	TOTAL \$15,450.00 \$637.50 \$21,888.00 \$3,625.01 \$41,600.51
Area Cost Fa SUBTOTAL	ictor (Local and Means)						69%	\$28,704 \$102,104
Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor O SUBTOTAL Contractor P	or Profit verhead						5% 10% 5% 10%	\$5,105.22 \$107,210 \$10,720.96 \$117,930.53 \$5,897 \$123,827 \$12,382.71
TOTAL UNIT	COST							\$136,209.76
·			•					
Source of C	ost Data: Local costs from an ongoing proj Construction Cost Data, RS Mea Environmental Remediation Cost	ns, 58th Edi		•		om an ongoir	ng project.	
Cost Adjust	ment Factor:					•		•
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X Of. X		0.69 localiz	Factor of 1 ation facto narkup of	F.00 for base p or for 052 zip of 10% for both 10% for both	code (Means Overhead ar	nd Profit.

Common Costs									
Capital Cost Sub-Eler	ment								
LEVEL B EQUIP & M							COST	T.WORK	CSHEET
	Tannery Site						<u> </u>	1.410	(0, 122.
Location: Pownal	I, Vŧ								
	ilty Study								
Base Year: 2001	.,,							•	•
Date: Apr-01									
Work Statement:						· 			
C4 Analysis									
Cost Analysis: DESCRIPTION	•	^TV	*****						
Capital Costs (Per P	!a-	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
SCBA - Rescue, 30mi	,	1	ΕA	\$0.00	ቁሳ ሳሳ	** 010 65	** 040 SS	#4 040 CE	
Cascade Aidine Kit, F		1	EA	\$0.00 \$0.00	\$0.00 \$0.00	\$1,819.65 \$662.50	\$1,819.65 \$662.50	\$1,819.65 \$662.50	
Low Pressure Warning	in Alarm	1	EA	\$0.00	\$0.00	\$662.50 \$220.00	\$562.50 \$220.00	\$662.50 \$220.00	
	Airline Respirators - Full	1	EA	\$0.00	\$0.00	\$220.00 \$446.65	\$220.00 \$446.65	\$220.00 \$446.65	
Neoprene Hose, 50'L	•	4	EΑ	\$0.00	\$0.00	\$257.05	\$257.05	\$1,028.20	1
MSA Kwik-Draw Pum	ip .	1	EA	\$0.00	\$0.00	\$325.00	\$325.00	\$325.00	!
Galvanized Gas Cylin	-	0.2	EΑ	\$0.00	\$0.00	\$621.00	\$621.00	\$124.20	1
Gas Cylinder Tags, La	abels & Signs	0.2	PKG	\$0.00	\$0.00	\$10.75	\$10.75	\$2.15	. !
SUBTOTAL						•	-	\$4,628.35	
Subcontractor Profit SUBTOTAL							10%	\$463 \$5,091	
Prime Contractor Prof	fit						10%	\$509	
TOTAL UNIT COST								\$5,600	
Monthly Costs:									
Nitrile gloves		4	BOX	\$0.00	\$0.00	\$18.80	\$18.80	\$75.20	!
Nitrile gloves dispense	er pack - outer	4	BOX	\$0.00	\$0.00	\$159.65	\$159.65	\$638.60	!
Tyvek 1A-25029		200	EA	\$0.00	\$0.00	\$6.65	\$6.65	\$1,330.00	J
Latex Overboots		200	PAIR	\$0.00	\$0.00	\$3.45	\$3.45	· \$690.00	}
Duct Tape Caution Tage		50 20	ROLL	\$0.00	\$0.00	\$11.45	\$11.45	\$572.50	,
Caution Tape Walkie Talkies - Rent		20	ROLL	\$0.00	\$0.00	\$5.00	\$5.00	\$100.00	,
Industrial Scientific M		6 3	MO;	\$0.00 \$0.00	\$0.00	\$120.00 \$400.00	\$120.00	\$720.00	,
	H2S, O2, Pentane Cal gas	3 0.5	MO CYL	\$0.00 \$0.00	\$0.00 \$0.00	\$400.00 \$300.00	\$400.00	\$1,200.00	,
Flame-ionization deter		3	MQ	\$0.00 \$0.00	\$0.00 \$0.00	\$300.00 \$640.00	\$300.00 \$640.00	\$150.00 \$1,920.00	
Respirator Wipe Pads		10	PKG	\$0.00	\$0.00 \$0.00	\$640.00 \$15.10	\$640.00 \$15.10	\$1,920.00 \$151.00	
MSA Detector Tubes -		25	PKG	\$0.00 \$0.00	\$0.00 \$0.00	\$15.10 \$53.40			
Compressed air 2.2 U	-	25 30	CYL	\$0.00			\$53.40 \$30.00	\$1,335.00 \$900.00	
316 T UHP Hydrogen	-	30 10	CYL	\$0.00 \$0.00	\$0.00 \$0.00	\$30.00 \$125.00	\$30.00 \$125.00	. \$900.00 \$1.250.00	
SUBTOTAL	Gaş	Iυ	OIL	Φυ.υυ	ቅሁ.ህህ	\$120.00	\$125.00	\$1,250.00 \$11,032.30	
Subcontractor Profit							10%	\$1,103	
SUBTOTAL								\$12,136	ļ
Prime Contractor Profi	it						10%	\$1,214	
TOTAL UNIT COST							ı	\$13,349	
CYL = cylinder									
Source of Cost Data:	<u>:</u>							•	ĺ
Local ve									
Cost Adjustment Fac									
	ACTOR:	·		NOTES:					į
H&S Pro	oductivity (labor & equip)			Not Applicat	ble				
Escalation	on to Base Year		-	Base year co	osts				
Area Co	ost Factor			Not applicab	əle				ļ
Subcont	tractor Profit.	Х		Assuming m	narkup of 1	10% for Profit.			1
Prime C	Contractor Profit	X							į
1 111110 0-	indactor from.			Assuming ra	агкор от п	10% for Profit.			

e jest.

Alternative 5 Capital Cost : BACKFILL	Sub-Element			٠.			cos	T WORKS	HEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01						·		
Work Staten	nent: Backfill excavated contaminated s Backfill estimate includes delivery			ction of comm	non 톄.				
Cost Analys	is:								
DESCRIPTIO Backfill Exca SUBTOTAL	ON vated Material with Common Fill	QTY 73,600	UNIT CY	LABOR \$0.86	EQUIP \$1.98	MTRL \$5.06	UNIT TOTAL \$7.90	TOTAL \$581,440.00 \$581,440.00	
Area Cost Fa	actor						69%	\$401,194	
Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor O SUBTOTAL Contractor Pr	or Profit verhead						5% 10% 5% 10%	\$20,059.68 \$421,253 \$42,125.33 \$463,379 \$23,168.93 \$486,548 \$48,654.75	
TOTAL UNIT	COST					•		\$535,202.29	
									•
									:
Source of C	ost Data: Environmental Remediation Cost	Data, RS Mea	ans, 6th E	dition, 2000					
Cost Adjusti	ment Factor:								
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X X		0.69 localize	ation factor narkup of 10	00 for base y for 052 zip c 0% for both (0% for both (ode (Mean: Overhead a	nd Prolit.	2000

.

.

Common costs Capital Cost Sub-Element **COST WORKSHEET** LAND USE RESTRICTIONS Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01 Work Statement: Zoning/Deed restrictions Cost Analysis: UNIT DESCRIPTION QTY UNIT LABOR **EQUIP TOTAL** TOTAL MTRL Legal Preparation HR \$150.00 \$0.00 \$0.00 \$150.00 \$18,000.00 120 Engineering Support \$75.00 \$18.43 \$7,604.00 80 HR \$1.62 \$95.05 Filing LŞ \$0.00 \$0.00 \$2,000.00 \$2,000.00 \$2,000.00 1 SUBTOTAL \$27,604.00 Contractor Overhead 5% \$1,386.20 SUBTOTAL \$28,984.20 Contractor Profit 10% \$2,898.42 TOTAL UNIT COST \$31,882.62

Source of Cost Data:

Engineering judgement

RAA-7

RAA-7: Solidification/Stabilization

ASSUMPTIONS:

- i. Discount rate for net present worth calculation of 7% per recommendation of EPA document 540-R-00-002, A Guide to Developing and Documenting Cost Estimates During the Feasibility Study.
- ii. Cost estimating sources:

Building Construction Cost Data, RS Means, 58th Edition, 2000 Environmental Remediation Cost Data, RS Means, 6th Edition, 2000 Local vendors, RI costs for Pownal Tannery, and ongoing projects

- iii. Abbreviations: CY = cubic yards; CF = cubic feet; SY = square yard; SF = square feet; LF = linear feet; LS = lump sum; EA = each; MWK = man weeks; MSF = thousand square feet; MO = month; WK = week; CYL = cylinder.
- iv. Future use of site for recreational purposes. A separate investigation and cost estimate will need to be prepared for future site development.
- v. For costing purposes, assumed that wetlands will be recreated at a 1:1 ratio.
- vi. A 1.5 conversion factor was used to convert from CY to TON for sediment/sludge cost calculations
- vii. RI determination of waste quantities adequate for implementation of RAA-7. No additional sampling required to further delineate extent of waste.

CAPITAL COST ITEMS:

Estimated Time to Complete Alternative:

- Mobilization/Demobilization:	4 wks
- Site Work	5 wks
- Excavation/Solidification/Consolidation	23 wks
- Wetlands	3 wks
- Cover	14 wks

12.75 Months

Note: Total project duration does not include seasonal impacts or delays.

1. Mobilization/Demobilization:

Site construction activities will require office trailers and field office supplies, storage trailers, decontamination trailers, sanitary facilities, utilities (phone and electrical, including connect/disconnect fees and monthly charges), and site lighting. Assumed installation of electrical poles will be necessary to bring power to the lagoon area (1 pole/150 LF). An allowance for pre-/post- construction submittals and implementation plans is included based on hourly rates for engineering and office support. See hourly breakdown included with applicable Common Cost Worksheets.

2. Site Work:

General Equipment: Includes construction support equipment such as site vehicles, dumpsters, and water coolers for the site office trailers. A portable generator is included to support equipment located away from electrical receptacles where using an extension cord would be impractical.

Continuous Air Monitoring: Assumed 1 laborer at \$55/hr will conduct continuous monitoring during 25% of site preparation and excavation. See applicable Common Cost Sub-Element Worksheet for breakdown of monthly expense.

Clearing/Grubbing: Will need to clear and grub site to facilitate movement of construction equipment. See applicable RAA-7 Capital Cost Sub-Element Worksheet for additional assumptions.

Well Abandonment/Replacement: Assumed 7 wells in the lagoon area will need to be abandoned/replaced to accommodate cap construction and excavation of perimeter berm between Hoosic River and Lagoons 1 and 5. Cost estimate based on experience.

Surveying: Assumed 2-man crew with GPS at \$135/hr onsite for 1 week during general site preparation and also for 37 weeks during excavation and capping activities at 3 days/week. The unit cost estimate was based on information from an ongoing project. The Subcontractor's cost includes hours for 1 supervisor at \$50/hr and has an additional mark up to include Contractor's O&P.

Erosion-Dust Control: Assumed use of a water truck for dust suppression, the installation of silt fencing with hay bales along the access road bordering the Hoosic River (approximately 1,800 LF), and an allowance for construction of one sedimentation trap (50'x 25'x 6'). Exact location, size and grading requirements to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for sedimentation basin material and quantity assumptions made for costing purposes.

Access Roads-Perimeter: A temporary perimeter road around landfill cap will need to be installed to facilitate excavation/stabilization/capping activities (using 2,200 LF of road). See applicable Common Cost Sub-Element Worksheet for breakdown of unit cost/100 LF. Road cross-section consists of a layer of geotextile, and 1' of 4" to 6" ROC.

Access Roads-Lagoons: Road access, through Lagoons 1 and 5, is needed to facilitate excavation of contaminated material (using 500 LF). Road cross-section consists of 3' of subgrade fill, a layer of geotextile, and 2' of 4" to 6" ROC.

Perimeter Construction/Security Fence: Assumed the removal of existing fence and the installation of a 7-foot high fence around the entire perimeter of the Lagoon area. See applicable RAA-7 Capital Cost Sub-Element Worksheet for additional assumptions.

Backfill Lagoon 2: Lagoon 2 will be backfilled to site grade to create a staging area for site trailers, decontamination facilities and structures. The final two feet of backfill will be 1.5" crushed gravel. See applicable Common Cost Sub-Element Worksheet for additional assumptions.

Decontamination Structure – Heavy Equipment: Two, 8" thick, 25'x 65', concrete pads will be constructed in the staging area to remove sediment from equipment. Pad construction includes a 6" gravel base, a concrete curb and sump with 12" corrugated pipe around perimeter. Exact locations and size to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for assumed quantities and material unit costs.

Decontamination Structure – Personnel: Two, 4" thick, 6' x 6', concrete pads will be constructed in the staging area. Pad construction includes a 4" gravel base with a concrete curb around the perimeter. Exact locations and size to be determined during design phase. See applicable Common Cost Sub-Element Worksheet for assumed quantities and material unit costs.

Dewater Standing Water in Lagoons: Standing water volume estimate of approximately 2,841,000 gal in Lagoons 1, 2, 4 and 5. Requires the use of one 300 GPM pump operating 24 hrs/day for 1 week to remove initial volume. Assumes no immediate ground water recharge. During construction, figure standing water will need to be removed approximately once per month to account for slow ground water recharge and precipitation accumulation. Dewatering of standing water assumed to be above the water table. See applicable Common Cost Sub-Element Worksheet for quantities and unit costs.

Collection & Treatment of Standing Water in Lagoons: Will treat standing water in lagoons using eight Carbon Adsorption units. Each unit consists of two vessels containing 1,000 lbs of carbon/vessel; 2,000 lbs of carbon assumed to treat 100,000 gallons. Fractionation tanks (20,000 gal/tank) will be needed to store untreated water. Discharge of treated water will occur onsite through two infiltration galleries assumed to be 20'x 5'x 5' and consisting of geotextile and riprap. Exact location and size to be determined during design. Analytical testing will be conducted prior to initial discharge to ensure proper treatment.

Continuous Cleanup: Cleanup of site during construction activities – 1 laborer.

Site Restoration: Estimate from previous project. Costs to remove concrete structures, repair access roads, and clean up debris.

3. Excavation of Waste Material, Backfill & Wetland Mitigation:

Excavation: Excavation rate of approx. 60 CY/hr/excavator, two excavators. Excavated volume = 40,800 CY sludge; 12,778 CY cover soils Lagoon 1. Excavation rate limited by capacity of S/S treatment process. Cover soil from Lagoon 1 will be stockpiled for future use or disposal. Reuse of material not included in cost estimate. Quantity of removed material padded by 20%. Other costs include truck bed liners (2 liners/day) and covers (1 cover/day). Excavation assumed to be conducted without dewatering below the water table. 30% of operation assumed to occur under Level B conditions.

Odor Suppression: Application of foam odor suppressant during excavation and capping of contaminated material. Costs for labor include 1 laborer at \$65/hr. Material costs include shipping.

Confirmatory Soil Sampling: Needed to verify/confirm that desired concentration levels have been achieved through excavation. Analysis estimate includes Pest/PCBs, VOCs, SVOCs, Metals/CN and Dioxins.

Technician – Soil Sampling: Labor required to collect samples during excavation - 1 technician at \$55/hr. Includes contractor mark up for overhead and profit.

Sludge Dewatering Structures: Construction costs for a 30' x 40' dewatering structure to store saturated, contaminated, material before treatment. Components for construction determined from EPA document 625/6-89/022; S/S of CERCLA and RCRA Wastes: Physical Tests, Chemical Testing Procedures, Technology Screening and Field Activities, Section 7.1.3. - Untreated Waste Storage. Exact number and location of structures to be determined in design phase.

Level B Equipment/Operation/Shipping Allowance: Assuming a crew of 15 will need equipment and supplies for 30% of the excavation of the contaminated sludge.

Decontamination of Heavy Equipment: Includes decontamination of 10 pieces of equipment, once/day during initial site work, excavation and capping.

Operation of Trash Pump: Cost to operate a trash pump for decontamination over period of initial site work, excavation and capping. See Common Cost Sub-Element Worksheet for decontamination of heavy equipment.

Backfill Excavated Material: Assuming all of the material excavated will be backfilled with clean material from a local borrow source, approximately 45,600 CY of fill. Backfill 75% of Lagoon 1 to grade, approximately 20,000 CY.

Wetland Mitigation: Assuming 1:1 replacement of 2.4 acres of wetlands with locations of recreated wetland areas to be determined at the design stage.

4. Solidification/Consolidation of Waste Material:

Solidification: Assuming for costing purposes a mixture of 5% Cement (Type 2), 10% Fly Ash (C) with water as needed and only treating the excavated wastes from Lagoons 1 and 5 and the perimeter berm material between Lagoons 1 and 5 and the Hoosic River and the berm material between Lagoons 1 and 5.

TCLP Analysis: Information on frequency of analysis in an email from Richard Scott; will input first thing Monday morning.

Collection & Treatment of Runoff from Dewatering Structures: Estimated time to complete excavation and initial installation of cover subgrade is assumed to be 23 wks. Analytical monitoring for compliance before direct discharge into onsite infiltration galleries.

Backfill w/common fill – Subgrade: Means unit cost that includes loading washed and graded sand at pit, delivering to site, and dumping sand at location. Unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Rough Grading of Subgrade: Means unit cost for grading with dozer. Unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Compaction of Subgrade: Means unit cost that includes compacting subgrade using a roller, 6" lifts. Unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Spread/Compact Contaminated Material: Means unit cost that includes spreading dumped borrow and compacting with roller in 8" lifts. Unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

5. <u>Cover</u>: Cover components (from base to top) consists of a layer of geotextile, 1.5 feet of cover fill and 6" of topsoil. Top of landfill sloped 5% to 7%; sideslopes maximum of 3:1. Area of cap = 4.0 acres.

Cover Soil (Common Fill): Thickness of fill layer taken as 18" over an approximate area of 4 acres increased by 30% to account for side slopes. Sand ton = 4 acres x 30% increase x 1.5 TONS/CY = approx. 18,900 tons. Gas venting wells costed by assuming 1 gas vent/ACRE at \$1,500/vent based on engineering judgment and experience.

Geosynthetics: One layer of geotextile installed over 4 acres.

Topsoil: 6" layer of topsoil over an approximate 4 acre area increased by 30% to account for side slopes. Assuming weight of topsoil = $1.5 \text{ TONS/CY} \times 4200 \text{ CY} = 6,300 \text{ tons}$.

Geotechnical Testing of Soil Materials: Grain size analysis at a rate of 1 test/500 tons of material for gas collection layer, granular drainage layer and topsoil.

Drainage Structures: Estimate of material required to build drainage structures for landfill cap assuming drainage swale around perimeter of cap footprint (approx. 2,400 LF) width of 10' and depth of 2', consisting of 10 to 100 lb riprap over nonwoven geotextile. An allowance for two heavy stone riprap areas of ~200 SF were assumed for construction of heavy drainage outlet structures.

Erosion Control Blankets: Installation of blankets over cap area of 4.0 acres. Means unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Seeding/Mulch/Fertilizer: Application over cover area of 4.0 acres. Means unit price includes localization factor and markups for subcontractor and contractor overhead and profit.

Land Use Restriction: See hourly breakdown and rates included with applicable Common Cost Sub-Element Worksheets.

Site:	Pownal Tannery Site					tion, consolidation and capping
_ocation: Phase:	Pownal, Vt Feasibility Study		of waste wit in Years 1-6		ital costs occu	ur in Year 0 . Annual costs occur
Base Year:	2001					
ate:	Apr-01					<u> </u>
APITAL C	osts:			UNIT		•
	DESCRIPTION	QTY	UNIT	COST	TOTAL	NOTES
viobilization	/ Demobilization					
	Construction Equipment	2	LS	\$2,522.11		Excavators, loaders, etc.
	Submittals/Implementation Plans	1	LS	\$100,985.69	.\$100,986	
	Temporary Facilities & Utilities Field Office Supplies	1	LS LS	\$96,819.62 \$14,519,33	\$96,820 \$14,519	
	Post-Construction Submittals	1	LS	\$29,481.95		Post-construction report
	Tost Obligation Cabinitals	•	LO	425,401.05	ψ£0, +0£	7 cor-consulations report
	SUBTOTAL			_	\$246,851	
					•	
Site Work						
	General Equipment and Supplies	1	LS	\$64,835.94	\$64,836	
	Continuous Air Monitoring	13	MO	\$5,120.17	\$65,282	
	Clearing/Grubbing	1	LS	\$20,474.62		Heavy brush, light trees, clear, grub, haul
	Well Abandonment Surveying	7 114	EA DAY	\$5,775.00 \$1,709.40	\$40,425	
	Erosion/Dust Control Measures	114	LS	\$1,709.40 \$44,780.74	\$194,672 \$44,781	2-man crew @ 3 days/wk
	Access Roads - Lagoons	5	100 LF	\$5,075.78	\$24,110	
	Access Roads - Perimeter	22	100 LF	\$1,657.30	\$36,461	
	Perimeter Fence	1	LS	\$137,680.62	\$137,681	
	Backfill Lagoon 2	1	LS	\$506,827.00	\$506,827	
	Decontamination Structure - Heavy Equipment	2	LS	\$29,360.54	\$58,721	
	Decontamination Structure - Personnel	2	LS	\$311.13	\$622	
	Dewater Standing Water in Lagoons	1.5	WK	\$9,940.27	\$14,910	
	Collect and Treat Standing Water	3	WK	\$123,528.43	\$370,585	
	Continuous Cleanup Site Restoration	44 1	MWK LS	\$819.22 \$5,000.00	\$30,040 \$5,000	Means including O&P and localization factor
	SUBTOTAL	•		40,000.00_	\$1,621,633	
Excavation	of Waste Material, Backfill and Wetlands Mitigation	_				
	Excavation	1	LS	\$395,829.33	\$395,829	
	Odor Suppression Confirmatory soil sampling	1 50	LS EA	\$20,995.59 \$1,100.00	\$20,996 \$55,000	
	Technician - soil sampling	1	LS	\$58,443.00	\$58,443	
	Sludge Dewatering Structures	4	LS	\$3,212.65	\$12,851	
	Level B Equipment	15	PER	\$5,600.30	\$84,005	
	Level B Operation	1.91	МО	\$13,349.08	\$25,560	
	Level B Shipping Allowance	1	LS	\$5,000.00	\$5,000	
	Decontamination of Heavy Equipment	2,100	EA	\$220.44	\$462,915	
	Operation of Trash Pump	210	DAY	\$156.91	\$32,952	
	Backfill Excavated Material Lagoon Area Restoration/Stabifization	1 2.4	LS ACRE	\$476,677,20 \$45,200.00	\$476,677	
-	SUBTOTAL	2.4	ACKE	340,200.00_	\$110,880 \$1,741,108	<u>-</u>
Solidification	/Consolidation of Waste Material					
	Solidification	1	LS	\$1,563,784.76	\$1,563,785	
	TCLP Analysis Collection & Treatment of Runoff from	204	EΑ	\$131.67	\$26,861	
	Collection & Treatment of Runoff from Dewatering Structures	1	LS	\$141,279.43	\$44+ 07A	
	Backfill w common fill - subgrade	3,872	CY	\$141,279.43 \$21.01	\$141,279 \$81,332	
	Rough Grading of Subgrade	19,360	SY	\$2.95	\$57,025	
	Compaction of Subgrade	174,240	SF	\$0.44	\$76,984	
	Spread/Compact Stabilized Material	40,800	CY	\$0.96	\$39,058	Padded 20%
	SUBTOTAL			_	\$1,986,324	
Cause					•	
Cover	Geotextile	1	LS	\$43,603.12	\$43,603	
	Cover Soil (common fill)	i	LS	\$183,771.12	\$183,771	
	Topsoil	1	ĹS	\$143,202.36	\$143,202	
	Geotechnical Testing of Soil Materials	50	ĒΑ	\$142.36		Soil Tests/500 tons of material; Grain Size
	Drainage Structures	· 1	LS	\$43,804.35	\$43,804	
	Erosion Control Blankets	25,168	SY	\$1.12	\$28,263	
	Seeding/Mulch/Fertilizer SUBTOTAL	25,168	SY	\$1.37_	\$34,518 \$484,328	

Location:	TION/STABILIZATION Pownal Tannery Site Pownal, Vt	Description	: Alternative 7	consists of excav	ration, soldification, co	FESTIMATE SUMMARY possolidation and capping
Phase: Base Year:	Feasibility Study		of waste with in Years 1-6.	rciean cover. Ca	pital costs occur in Ye	ear 0 . Annual costs occur
SUBTOTAL		····		-	\$6,080,244	
	Contingency (20% scope + 15% bid)	35%			\$2,128,085	
SUBTOTAL	·				\$8,208,329	
	Project Management	5%			\$419,416	
ł	Remedial Design	6%			\$492,500	
	Construction Management Institutional Controls	6% -			\$492,500 \$31,883	
TOTAL CAPI	TAL COST:			E	\$9,603,745	
ANNUAL 08	M COSTS (Year 1):					· · · · · · · · · · · · · · · · · · ·
	DESCRIPTION	QTY	UNIT	COST	TOTAL	NOTES
Site Monitorin		_		-		
	Cap Inspections Mowings (2/year)	2 227	EA MSF	\$3,000.00 \$2.84	\$6,000 \$940 Lawn,	riding mower, 48" - 58"; Including markups
	Groundwater Sampling - Equipment and Labor Groundwater Analysis - VOCs, SVOCs, Metals	4	EA	\$32,771.92	\$131,088	
	Groundwater Analysis - Dioxins	60 14	EA EA	\$2,000.00 \$750.00	\$120,000 12 loc: \$10,500 - One	alions, quarterly, inc 3 QA/QC Samples round; inc 2 QA/QC Samples
	Sediment Sampling - Equipment and Labor Sediment Analysis - VOCs, SVOCs, Metats	1 7	EA EA	\$6,364.10 \$1,100.00	\$6,364	tions, annually; inc 3 QA/QC Samples.
	Sediment Analysis - Dioxins SUBTOTAL	5	EA	\$800.00	\$4,000 1 QAX \$286,592	QC
	Fechnical Support Progress Reports			450/		
	O&M Oversite			15% 5%	\$42,989 \$14,330	ļ
SUBTOTAL				_	\$343,911	
Contingency				10%	\$34,391	
,	TOTAL ANNUAL O&M COST (Year 1)			Г	\$378,302	· .
ANNUAL O&	M COSTS (Years 2-3):					<u> </u>
	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	NOTES
Site Monitorin	g Cap Inspections	1	EA	\$3,000,00	\$3,000	
	Mowings (2/year)	227	MSF	\$2.84	\$940 Lawn, i	riding mower, 48" - 58"
•	Groundwater Sampling - Equipment and Labor Groundwater Analysis - VOCs, SVOCs, Metals	2 30	EA EA	\$32,771,92 \$2,000.00	\$65,544 \$60,000 12 loca	itions, semi; inc 3 QA/QC Samples
9	Groundwater Analysis Sediment Sampling - Equipment and Labor	14 1	EA EA	\$750.00	\$10,500 - Inc 2	QA/QC Samples
	Sediment Analysis - VOCs, SVOCs, Metals	7	EA	\$6,364.10 \$1,100.00		ions, annually, inc 3 QA/QC Samples
	Sediment Analysis - Dioxin SUBTOTAL	5	EA	\$800.00_	\$4,000 1 QA/C \$158,048	oc .
	echnical Support Progress Reports			15%	\$19 7A7	
(D&M Oversite			5% _	\$23,707 \$7,902	·
UBTOTAL					\$189,658	
Contingency				10%	\$18,966	
UBTOTAL						
. 1	OTAL ANNUAL O&M COST (Years 2-3)			Г	\$208,624	

Alternative 7 SOLIDIFICA	TION/STABILIZATION					C	OST ESTIMATE SUMMARY
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01	·					tion, consolidation and capping ir in Year 0 . Annual costs occur
ANNUAL O	M COSTS (Years 4-6):					·	
	DECEDIDATION		0774	AUNITE	UNIT	TOTAL	NOTES
Site Monitori	DESCRIPTION		QTY	UNIT	COST	TOTAL	MOTES
206 MONION	ng - Groundwater Sampling - Equ	inment and Labor	1	EA	\$32,771.92	\$32,772	
	Groundwater Analysis - VOC		15	EA	\$2,000.00		12 locations, annual; inc 3 QA/QC Samples
	Groundwater Analysis	o, 01000, motors	14	EA	\$1,500.00		- Inc 2 QA/QC Samples
	Sediment Sampling - Equipm	nent and Labor	1	EA	\$6,364.10	\$6,364	
	Sediment Analysis - VOCs, \$		7	EA	\$1,100.00	\$7,700	4 locations, annually; inc 3 QA/QC Samples
	Sediment Analysis - Dioxin		5	EA	\$800.00	\$4,000	1 QA/QA
	SUBTOTAL				_	\$101,836	•
	T				•		
Professional	/Technical Support				15%	\$15,275	
	Progress Reports O&M Oversite				5%	\$5,092	
SUBTOTAL	Odin Orcisiic				-	\$122,203	•
SODIGIAL					-	3122,20 3	
Contingency	•				10%	\$12,220	
SUBTOTAL							
•	TOTAL ANNUAL O&M COS	ST (Years 4-6)			£	\$134,424	•
PRESENT V	/ALUE ANALYSIS:	•					
	COST TYPE	YEAR	TOTAL COST	TOTAL COST/YR	DISCOUNT FACTOR	PRESENT VALUE	NOTES
	Capital Cost	0	\$9,603,745	\$9,603,745	_	_	See support sheet for discount factors and
	Annual O&M Cost	1-2	\$756,604	\$378,302	-	_	Present Value calculation
	Annual O&M Cost	3-5	\$625,872	\$208,624	_	-	1 magazi gerran in markan api manananan kantranak f
	Annual O&M Cost	6-15	\$1,344,235	\$134,424	-	-	
					-		
							Remedial Action Report
	TOTAL PRESENT VALUE O	OF ALTERNATIVE			[\$10,597,759	l

Alternative 7 IN SITU RCRA/CERCLA FINAL COVER

PRESENT VALUE ANALYSIS

Site: Location: Phase: Pownal Tannery Site

Pownal, Vt Feasibility Study

Description:

Alternative 7 consists of excavation, soldification, consolidation and capping of waste with land use restrictions. Capital costs occur in Year 0. Annual costs occur in Years 1-6.

Base Year: 2001

Date: Apr-01

Year	Capital Costs (\$)	Annual O&M Costs (\$)	Periodic Costs (\$)	Total Costs (\$)	Discount Factor at 7%	Total Present Value Cost at 7% (\$)	
0	\$9,603,745	\$0		\$9,603,745	1,000	\$9,603,745	
1	•	\$378,302		\$378,302	0.935	\$353,712	
2		\$208,624		\$208,624	0.873	\$182,129	
3		\$208,624		\$208,624	0.816	\$170,237	
4		\$134,424	•	\$134,424	0.763	\$102,565	
5		\$134,424		\$134,424	0.713	\$95,844	
6		\$134,424		\$134,424	0.666	\$89,526	•
7				\$0	0.623	\$0	
8			•	\$ 0	0.582	\$0	
9				\$0	0.544	\$0	
10				\$0	0.508	\$0	
11				\$0	0.475	\$0	
12				\$0	0.444	\$0	
13				\$0	0.415	\$0	
. 14				\$0	0.388	\$0	
15				\$0	0.362	\$0	
16				\$0	0.339	\$0	
17				\$0	0.317	\$0	•
18				\$0	0.296	\$0	
19				. \$0	0.277	\$0	
20				\$0	0.258	\$0	
21				\$0	0.242	\$0	
22				\$0	0.226	\$0	
23				\$0	0.211	\$0	
24				\$0	0.197	\$0 .	
25				\$0	0.184	\$0	
26				\$0	0.172	\$0	
27				\$0	0.161	\$0	
28				\$0	0.150	\$0	
29				\$0	0.141	\$0	
30				\$0	0.131	\$0	

TOTAL PRESENT VALUE OF ALTERNATIVE

\$10,597,759

Alternative 7 Capital Cost S CONSTRUCT	Sub-Element ION EQUIPMENT						COST	WORKS	HEET
Location: Phase: Base Year:	Apr-01								·
	Mobilization and demobilization cost	ts for lar	rge equipi	ment.					
Cost Analysis	s:								
DESCRIPTION Dozer Backhoe/FE L Dump Truck Excavator Loader Roller Area Cost Fact Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor Ov SUBTOTAL Contractor Proceedings TOTAL UNIT	coader ctor Overhead Profit rerhead	QTY 2 1 3 2 1 1 1	UNIT EA EA EA EA EA	LABOR	EQUIP \$274 \$274 \$274 \$274 \$274 \$274	MTRL	UNIT TOTAL \$274 \$274 \$274 \$274 \$274 \$274 \$274 5% 10%	TOTAL \$548.00 \$274.00 \$822.00 \$548.00 \$274.00 \$2,740.00 \$1,890.60 \$94.53 \$1,985.13 \$1,985.13 \$1,985.13 \$2,183.64 \$109.18 \$2,292.83 \$229.28	
Source of Co	st Data: Building Construction Cost Data, RS	S Меапя	s, 58th Ed	lition, 2000					
	FACTOR: FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X X	·	0.69 localiz	Factor of 1 ation factor narkup of 1	for 052 zip 0% each fo	code (Mean or both Overh	I, cost informations) s) ead and Profit. ead and Profit.	on 2000

Common costs Capital Cost Sub-Element **COST WORKSHEET** SUBMITTALS & IMPLEMENTATION PLANS Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01 Work Statement: Preconstruction submittals are assumed to include health and safety plan, construction QA/QC plan and spill prevention plan. Cost Analysis: UNIT DESCRIPTION OTY UNIT LABOR EQUIP MTRL TOTAL TOTAL Engineering Permitting 320 HR \$75.00 \$0.00 \$0.00 \$75.00 \$24,000.00 Design HR 480 \$75.00 \$0.00 \$0.00 \$75.00 \$36,000.00 Meetings 100 HR \$75.00 \$0.00 \$0.00 \$75.00 \$7,500.00 Office Support Support staff Office Expenses 80 HR \$40.00 \$0.00 \$0.00 \$40.00 \$3,200.00 LS \$0:00 \$0.00 \$5,000.00 \$5,000.00 \$5,000.00 SUBTOTAL \$75,700.00 Subcontractor Overhead 5% \$3,785.00 SUBTOTAL \$79,485.00 Subcontractor Profit 10% \$7,948.50 SUBTOTAL \$87,433.50 Contractor Overhead \$4,371.68 5% SUBTOTAL \$91,805.18 Contractor Profit 10% \$9,180.52 TOTAL UNIT COST \$100,985.69 Source of Cost Data: Engineering judgement

Alternative 7 Capital Cost Sub-Element TEMPORARY FACILITIES AND UTILITIES	-					COST	WORKSHEET
Site: Pownal Tannery Site Location: Pownal, Vt Phase: Feasibility Study Base Year: 2001 Date: Apr-01							
Work Statement: Mobilize/rent temporary facilities and of the state o	utilities a	essociated	d with site wo	ork. Assumi	ing onsite c	onstruction tin	ne of
Cost Analysis:						·	
DESCRIPTION (Local) Mob/Demob Temporary Storage Trailer (2 units) Temporary Storage Trailer (2 units) Temporary Fencing Portable Toilets - Chemical (3 units) Mob/Demob Temporary Office with steps (2 Units) Temporary Office with steps (2 Units) Install power poles (2) Utility connection/disconnection Utilities (phone and electric) SUBTOTAL - Local DESCRIPTION (Means) Decontamination Trailer Area Cost Factor SUBTOTAL (Local and Means) Subcontractor Overhead SUBTOTAL Subcontractor Profit SUBTOTAL Contractor Overhead SUBTOTAL Contractor Profit TOTAL UNIT COST	QTY 2 26 2,100 38 2 26 2 13 QTY 13	UNIT MO LF MO EA MO EA MO	LABOR	EQUIP	MTRL \$2,000 \$500	UNIT TOTAL \$340 \$150 \$6.90 \$75 \$430 \$540 \$2,847 \$2,000 \$500 TOTAL \$2,275 69% 10% 5%	\$680 \$3,825 \$14,490 \$2,869 \$860 \$13,770 \$5,694 \$4,000 \$6,375 \$52,563 TOTAL \$29,006 \$20,014.31 \$72,577 \$3,628.85 \$76,205.92 \$7,620.59 \$83,826.51 \$4,191 \$88,018 \$8,801.78
Source of Cost Data: Environmental Remediation Cost Dat Local unit costs from on ongoing proje Cost Adjustment Factor: FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.		eans, 6th	NOTES: Not Applica Escalation 0.69 localiz Assuming r	ible Factor of 1.0 ation factor markup of 10	for 052 zip 0% each for	year of 2001, code (Means) r both Overher	ad and Profit.

.

Common Costs

Capital Cost Sub-Element FIELD OFFICE SUPPLIES

COST WORKSHEET

Site:

Pownal Tannery Site Pownal, Vt

Location: Phase:

Feasibility Study

Base Year.

Date:

2001 Арг-01

Work Statement:

Purchase miscellaneous field office supplies.

Cost Analysis:

DESCRIPTION Office Supplies	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
Office Supplies								
Cordless phone with answering machine	2	EΑ	\$0.00	\$0.00	\$90.00	\$90.00	\$180.00	
Computer	2	MO	\$0.00	\$0.00	\$480.00	\$480.00	\$960.00	\$40/MO for 6Mo
Surge Protectors	2	EΑ	\$0.00	\$0.00	\$28.49	\$28.49	\$56.98	
Floppy disks	2	PACK	\$0.00	\$0.00	\$9.99	\$9.99	\$19.98	40/PACK
Printer/fax/copier	1	EA .	\$0.00	\$0.00	\$199.97	\$199.97	\$199.97	
HP Printer toner	20	EA	\$0.00	\$0.00	\$29. 9 9	\$ 29.99	\$599.80	
Standard Task Chair	5	EA	\$0.00	\$0.00	\$119.75	\$119.75	\$598.75	
Standard Folding Chair	5	CARTON	\$0.00	\$0.00	\$77.35	\$77.35	\$386.75	5/CARTON
Shelving	2	EA	\$0.00	\$0.00	\$317.50	\$317.50	\$635.00	H74xW36xD21
Folding Tables - Heritage Series	2	EA	\$0.00	\$0.00	\$102.15	\$102.15	\$204.30	H29xW30xL96
Pens	10	PACK	\$0.00	\$0.00	\$3.89	\$3.89	\$38.90	60/PACK
Paper	20	CASE	\$0.00	\$0.00	\$20.99	\$20.99	\$419.80	5000/CASE
Pencils	10	PACK	\$0.00	\$0.00	\$3.19	\$3.19	\$31.90	48/PACK
Highlighters	5	PACK	\$0.00	\$0.00	\$4.35	\$4.35	\$21.75	43/PACK
Notepads	10	EA	\$0.00	\$0.00	\$4.35	\$4.35	\$43.50	
Sharpies (thick)	25	EA	\$0.00	\$0.00	\$1.52	\$1.52	\$38.00	
Sharpies (Thin)	50	EA	\$0.00	\$0.00	\$0.79	\$0.79	\$39.50	
Stapler	4	EA	\$0.00	\$0.00	\$9.99	\$9.99	\$39.96	
Staples Staple remover	2	BOX	\$0.00	\$0.00	\$2.99	\$2.99	\$5.98	1000/BOX
1 :	4	EA	\$0.00	\$0.00	\$0.69	\$0.69	\$2.76	
Scotch Tape	5.	EA	\$0.00	\$0.00	\$1.22	\$1.22	\$6.10	
Paper clips	5	PACK	\$0.00	\$0.00	\$1.69	\$1.69	\$8.45	1000/PACK
Binder clips	5	PACK	\$0.00	\$0.00	\$3.55	\$3.55	\$17.75	60/PACK
Masking tape	5	PACK	\$0.00	\$0.00	\$5.29	\$5.29	\$26.45	4/PACK
Hanging folders Manita folders	5	BOX	\$0.00	\$0.00	\$3.99	\$3.99	\$19.95	25/BOX
Scissors	2	BOX	\$0.00	\$0.00	\$4.19	\$4.19	\$8.38	100/BOX
Engineer's scale	4	PACK	\$0.00	\$0.00	\$16.25	\$16.25	\$65.00	2/PACK
Tacks	5	EA	\$0.00	\$0.00	\$3.65	\$3.65	\$18.25	100401016
Post-it-notes (4"X6")	5	PACK	\$0.00	\$0.00	\$0.25	\$0.25	\$1.25	100/PACK
Post-it-notes (3"X4")	5	PACK	\$0.00	\$0.00	\$6.99	\$6.99	\$34.95	6/PACK
· ,	5	PACK	\$0.00	\$0.00	\$10.99	\$10.99	\$54.95	12/PACK
Post-it-notes (1.5"X2")	5	PACK	\$0.00	\$0.00	\$4.19	\$4.19	\$20.95	12/PACK
Mag-Lite Flashlight	5	EA	\$0.00	\$0.00	\$24.95	\$24.95	\$124.75	L=8.5"
Batteries (AA)	10	PACK	\$0.00	\$0.00	\$6.15	\$6.15	\$61.50	8/PACK
Batteries (AAA)	5	PACK	\$0.00	\$0.00	\$8.49	\$8.49	\$42.45	12/PACK
Batteries (C)	5	PACK	\$0.00	\$0.00	\$9.99	\$9.99	\$49.95	8/PACK
Soft Wastbaskets	4	EA	\$0.00	\$0.00	\$8.20	\$8.20	\$32.80	H19xW15xD11
55-gal Waste Containers	5	EA	\$0.00	\$0.00	\$62.95	\$62.95	\$314.75	
Paper towels	50	PACK	\$0.00	\$0.00	\$15.75	\$15.75	\$787.50	15/PACK
Trash bags	50	PACK	\$0.00	\$0.00	\$8.49	\$8.49	\$424.50	50/PACK
Broom	1	. EA	\$0.00	\$0.00	\$9.19	\$9.19	\$9.19	
Dust pan	1	EA	\$0.00	\$0.00	\$5.15	\$5.15 \$5.15	\$5.15	
Disinfectant Cleaner	5	EA	\$0.00	\$0.00				
First Aid Kit	1	EA .			\$6.59	\$6.59	\$32.95	
Emergency Eye Wash Station			\$0.00	\$0.00	\$26.10	\$26.10	\$26.10	
	1	EA	\$0.00	\$0.00	\$24.15	\$24.15	\$24.15	
Extension cord (50')	3	EA	\$0.00	\$0.00	\$19.90	\$19.90	\$59.70	
Locks (2")	10	EA	\$0.00	\$0.00	\$11.55	\$11.55	\$115.50	
Locks (3/4")	10	EA	\$0.00	\$0.00	\$8.25	\$8.25	\$82.50	1
Shipping Allowance	1	LS	-	-	-	\$5,000.00	\$5,000.00	•
SUBTOTAL							\$11,999.45	<u></u>

Common Co							
	Sub-Element				CO°	ST WORKSHE	ст
FIELD OFFI	CE SUPPLIES	·			<u> </u>	31 WORKSHE	<u>- </u>
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01						
Subcontracto SUBTOTAL	or Profit				10%	\$1,200 \$13,199	
Prime Contra	actor Profit		•		10%	\$1,319.94	
TOTAL UNIT	r cost	-		•		\$14,519	
Source of C	ost Data: Equipment and supplies from local	vendors.	· · · · · · · · · · · · · · · · · · ·				
Cost Adjust	ment Factor:						
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Profit Prime Contractor Profit	X X	NOTES: No labor involved, ma 2001 material costs No area cost factor a Assuming markup of	pplied; Not applid	cable		

POST-CONSTRUCTION SUBMITTALS Site: Pownal Tannery Site Location: Pownal, Vt Phase:, Feasibility Study Base Year: 2001 Date: Apr-01 Work Statement:	COST WORKSHE
Location: Pownal, Vt Phase:, Feasibility Study Base Year: 2001 Date: Apr-01	
Phase:, Feasibility Study Base Year: 2001 Date: Apr-01	
Base Year. 2001 Date: Apr-01	
Date: Apr-01	· · · · · · · · · · · · · · · · · · ·
Work Statement:	
	·.
	·.
Cost Analysis:	• •
DESCRIPTION QTY UNIT LABOR	UNIT EQUIP MTRL TOTAL TOTAL
Engineering 240 HR \$75.00	\$0.00 \$0.00 \$75.00 \$18,000.00
Office Support	ψυ.σο ψεσισο ψεσισουσο.σο .
Support staff 40 HR \$40,00	\$0.00 \$0.00 \$40.00 \$1,600.00
Office Expenses 1 LS \$0.00	\$0.00 \$2,500.00 \$2,500.00 \$2,500.00
SUBTOTAL	\$22,100.00
Subcontractor Overhead	5% \$1,105.00
SUBTOTAL	\$23,205.00
Subcontractor Profit	. 10% \$2,320.50
SUBTOTAL	\$25,525.50
Contractor Overhead	5% <u>\$1,276.28</u>
SUBTOTAL	\$26,801.78
Contractor Profit	<i>10</i> % \$2,680.18
TOTAL UNIT COST	\$29,481.95
Source of Cost Data:	

Engineering judgement

Alternative 7 Capital Cost SITE GENER	Sub-Element RAL EQUIPMENT & SUPPLIES						cos	T WORKSHE	ΞΤ
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								
Work Staten	nent: Assuming total time onsite of app solidification/stabilization; 14 wks (5 wks concurrent with other tasks	capping; 2						on and	
Cost Analys	is:						*****		
Dumpsters (2	Signs ve Dumpsters ? Units) ve Water Coolers	QTY 4 2 26 2 2	UNIT EA EA MO EA MO	LABOR \$0.00 - - - -	EQUIP \$0.00 - - - -	MTRL \$82.80 - - - -	\$82.80 \$100.00 \$30.00 \$100.00 \$125.00	TOTAL \$331.20 \$200.00 \$765.00 \$200.00 \$3,187.50 \$4,683.70	
DESCRIPTION SUV Rentator Pickup Truck Generator 25 SUBTOTAL	: Rental	QTY 13 13 13	UNIT MO MO MO	\$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00 \$3,000.00	MTRL \$720.00 \$720.00 \$0.00	\$720.00 \$720.00 \$3,000.00	**************************************	
Area Cost Fa	actor						69%	\$39,060.90	
SUBTOTAL	(Local & Means)							\$43,745	
Subcontracto SUBTOTAL Subcontracto SUBTOTAL							5% 10%	\$2,187 \$45,931.83 \$4,593.18 \$50,525.01	
•	ON (Subcontractor Costs) tion	QTY 13 51 13	UNIT MO WK MO	\$0.00 \$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00 \$0.00	MTRL \$360.00 \$5.00 \$60.00	TOTAL \$360.00 \$5.00 \$60.00	TOTAL \$4,590.00 \$255.00 \$765.00	
SUBTOTAL	(Local, Means & Sub)							\$56,135.01	
Contractor O SUBTOTAL Contractor Po							5% 10%	\$2,806.75 \$58,941.76 \$5,894.18	
TOTAL UNIT	COSTS				-			\$64,836	
Source of C	ost Data: Local vendor and costs from inter Building Construction Cost Data,	_	,						
Cost Adjusti	ment Factor:				•				
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof.	X X		Escalation 0.69 locali Assuming	Factor of 1.0 zation factor markup of 10	00 for base for 052 zip 0% each for	year of 2001 code (Means both Overhe	ead and Profit.	
ļ	Prime Contractor Overhead & Pro	of. X		Assuming	markup of 19	n. each tou	poin Overhe	ead and Profit.	

	Sub-Element						0007	WOD'SO:
	JS AIR MONITORING						COST	WORKSHEE
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01			Þ	repared by: Date:	A.H. 4/23/01	Checked by: Date:	
Work Staten	nent: Continuous air monitoring around si of each alternative.	te perim	eter at 8 f	nrs/day and 5 o	days/wk. Co	nducted du	ning full implen	pentation
Cost Analys	is:	٠					,	
Cal-gas Industrial Sci	ON (Local) tion detector - Rent entific MG140 gas meter r of CO, H2S, O2, Pentane Cal gas	QTY 1 1 1 0.5	UNIT MO EA MO CYL	LABOR \$0.00 \$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00 \$0.00 \$0.00	MTRL \$640.00 \$120.00 \$400.00 \$300.00	UNIT TOTAL \$640.00 \$120.00 \$400.00 \$300.00	TOTAL \$640.00 \$120.00 \$400.00 \$150.00
Subcontracto SUBTOTAL Subcontracto SUBTOTAL			·				5% 10%	\$65.50 \$1,375.50 \$137.55 \$1,513.05
Walkie Talkie	ON (Subcontractor) es - Rent (3 pair) osol Monitor (5 Units) ② \$55/hr)	QTY 1 1 0.25	UNIT MO MO MO	LABOR \$0.00 \$0.00 \$8,800.00	EQUIP \$0.00 \$0.00 \$0.00	MTRL \$360.00 \$360.00 \$0.00	TOTAL \$360.00 \$360.00 \$8,800.00	\$360.00 \$360.00 \$2,200.00 \$2,920.00
SUBTOTAL ((Local and Subcontractor)							\$4,433
Contractor O SUBTOTAL Contractor Pi							5% 10%	\$221.65 \$4,654.70 \$465.47
TOTAL UNIT	COST/MO						[\$5,120.17
				·				
						,	÷	
Source of Co	ost Data: Costs for rental equipment from ven	dors.						÷
Cost Adjustr	nent Factor:						•	
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year			NOTES: Level D Escalation F	actor of 1.00) for base v	ear of 2001, co	st information 2000
	Area Cost Factor	Х				-	ode (Means)	
	Subcontractor Overhead & Prof.	Х		Assuming m	arkup of 109	% each for l	ooth Overhead	and Profit.
	Prime Contractor Overhead & Prof.	Χ		Assuming m	arkup of 10%	% each for t	ooth Overhead	and Profit.

Alternative 7	Cub Element							•	
Capital Cost	GRUB						COST	Worksi	HEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								
Work Stater									
VVOIN Olaver	Clear and grub to facilitate exca	avation, con	solidation	and hauling	. Material to	be dispose	d of onsite.		
Cost Analys	is:						. *		
DESCRIPTION Heavy Brush	DN without Grub, Chipping	QTY 11	UNIT ACRE	LABOR \$909.73	EQUIP \$1,055.00	MTRL \$0.00	UNIT TOTAL \$1,964.73	TOTAL \$22,243.49	
SUBTOTAL								\$22,243	
Area Cost Fa	actor						69%	\$15,348.01	
Subcontracto	or Overhead						5%	\$767	
SUBTOTAL Subcontracto	or Profit						10%	\$16,115 \$1,612	
SUBTOTAL								\$17,727	
Contractor C SUBTOTAL	vernead						5%	\$886.35 \$18,613	
Contractor P	rofit						10%	\$1,861	
TOTAL UNIT	COST							\$20,474.62	
•									
Source of C	ost Data: Environmental Remediation Co	st Data RS	Means 6	th Edition 2	2000			_	
		-							
Cost Adjust	ment Factor:							- "	
	FACTOR:	_		NOTES:				-	
	H&S Productivity (labor & equip	» <u> </u>		Level D				. ta	0000
	Escalation to Base Year							cost information	2000
	Area Cost Factor Subcontractor Overhead & Pro	, <u> </u>					code (Means) r both Overhe		
	Prime Contractor Overhead & Fro	<u></u>					r both Overhe		
	Strawer Stammad W					- ,0 ,000,00			

.

Itemative 7								
	Sub-Element UST CONTROL						COST	WORKSH
							000.	***************************************
ite:	Pownal Tannery Site							
ocation: hase:	Pownał, Vt Feasibility Study							
ase Year:	2001							
ate:	Apr-01							
ork Staten	nent:				-			
	Dust suppression/Pass cost at \$5	5.64/рег :	acre using	3 acres; as	needed an	plication ove	er period of exc	cavation
	 and cap construction - approx. 42 	🛚 weeks a	t 5 days/w	k and 1 pas	s/day. Silt i	fencing with	hay bales inst	alled along
	access road bordering river. Con	struction	of sedime	ntation traps	s based on	previous pro	ject. See Sub	-Element
	Cost Worksheet for breakdown. 1	rench ex	cavation v	rolume taker	as 1800' x	2' x 0.5'.		
st Analys	is:							
								-
SCRIPTIO	ON (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL
	ck - dust suppression/Pass	210	PASS	\$0.00	\$0.00	\$0.00		TOTAL
	oly, 3' high, adverse conditions	1800	LF	\$0.37	\$0.00 \$0.00	\$0.00	\$166.89 \$0.67	\$35,046.90 \$1,206.00
y Bales, S	taked	1800	LF	\$0.21	\$0.00 \$0.07	\$2.00	\$2.28	\$1,200.00 \$4,104.00
ice and Re	emove Hay Bales (maintenance)	22	TONS	\$178.00	\$57.50	\$50.00	\$285.50	\$6,281.00
ench excav	ation, 6" depth	. 70	CY	\$2.73	\$1.35	\$0.00	\$4.08	\$285.60
dimentatio	-	1	LS	\$0.00	\$0.00	\$0.00	\$965.12	\$965.12
BTOTAL -	Means						•	\$47,889
a Cost Fa	ctor						69%	\$33,043
SCRIPTIC	N (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
ter		11	MO	\$0.00	\$0.00	\$0.00	\$50.00	\$525.00
BTOTAL (Local and means)			•			•	\$33,568
ocontracto	r Overhead						5%	\$1,678
BTOTAL				•			-	\$35,247
bcontracto	r Profil						10%	\$3,525
BTOTAL							•	\$38,771
ntractor O	verhead						5%	\$1,938.56
BTOTAL							•	\$40,710
ntractor Pr	otit					-	10%	\$4,071
TAL UNIT	COST						[\$44,780.74
				•				
				•				
irce of Co								#
	Building Construction Cost Data, R	S Means	, 58th Edi	tion, 2000; L	ocal cost e	stimate from	an ongoing p	roject.
	Environmental Remediation Cost [Data, RS	Means, 6t	h Edition, 20	00			
t Adjustn	nent Factor;							
	FACTOR:		-	NOTEO				
	-			NOTES:				
	H&S Productivity (labor & equip)			Level D				•
	Escalation to Base Year			Escalation F	actor of 1.0	00 for base y	ear of 2001, c	ost information 2000
	Area Cost Factor	X		0.69 localiza	ation factor	for 052 zip c	ode (Means)	
	Subcontractor Overhead & Prof.	Х		Assuming n	arkup of 10)% each for	both Overhea	d and Profit.
	Prime Contractor Overhead & Prof	X		Assuming m	arkup of 10)% each for	both Overhead	d and Profit.
				~				

Common Cost	st Sub-Element								
	TION TRAPS						COST	WORKSH	IEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001	-				<u> </u>			
Work Staten	nent;								
	Basin size of 50'x25'x6'. Intet/Outle Marked up for O&P on erosion con				6'x6'x1.5'. A	Assuming 6	" dia PE pipe.		
Cost Analys	is:	•							
DESCRIPTIO Geotextile no 1.5" Crushed - Delivery SUBTOTAL	n-woven	QTY 2.67 10 1	UNIT SY TON HR	LABOR \$0.00 \$0.00 \$0.00	EQUIP \$0.00 \$0.00 \$0.00	MTRL \$0.00 \$5.50 \$0.00	UNIT TOTAL \$1.50 \$5.50 \$40.00	TOTAL \$4.00 \$55.00 \$40.00 \$99.00	
_	ON (Means) Riprap, Heavy (25 to 500 lb) Polyvinył Chloride Pipe	QTY 278 6 20	UNIT CY CY LF	\$0.34 \$3.00 \$1.72	EQUIP \$1.66 \$2.38 \$4.59	MTRL \$0.00 \$15.78 \$2:87	\$2.00 \$21.16 \$9.18	TOTAL \$555.56 \$126.96 \$183.60 \$866.12	
SUBTOTAL								\$965.12	
						÷		,	
:									
Source of C	ost Data: Subcontractor estimate - geotextile Environmental Remediation Cost D Building Construction Cost Data, R Marked up for O&P on element she ment Factor:	Data, RS I S Means	Means, 6t , 58th Edi	h Edition, 20 tion, 2000	00	cal borrow	source obtain	ed on 2/27/01.	
-	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.			0.69 localiz	ation factor markup of 1	for 052 zip 0% each fo	code (Means or both Overhe	, cost information) ead and Profit. ead and Profit.	2000

Common Co	osts t Sub-Element								
TEMPORA	RY ACCESS ROADS (COST PER 10	OLF)					COST	WORKS	HEET
Sîte:	Pownal Tannery Site								
Location:	Pownal, Vt								
Phase:	Feasibility Study								
Base Year:									
Date:	Apr-01							····	
Work State	ment: Install temporary access roads into l	agoons fo	r transpor	rt of excavate	d materials	to on-site st	tockpile areas	S .	
Cost Analy:			·				·		
DESCRIPTI	ON (Local)	QTY	UNIT	LABOR	EQUIP	MITOL	UNIT	TOT41	
	II - Subgrade	289	TON	\$0.00	\$0.00	MTRL \$3.00	TOTAL \$3.00	TOTAL \$866.67	
Crushed Sto	5	48.1	TON	\$0.00	\$0.00	\$5.00	\$5.00 \$5.00	\$240.74	
SUBTOTAL		,,,,,		V 0.00	Ψ0.00	40.00	Ψ5.00	\$1,107.41	
DECCOLOTI	ON (Manage)	OTV	LILIET		FOUID	14701			
Excavation of	ON (Means) of Fill of oit	QTY 222	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL.	
Loading of F	•	222	CY	\$0.34 \$0.39	\$1.66 \$1.91	\$0.00 \$0.00	\$2.00 \$2.30	\$444.44	
_	10 mi round trip	222	CY	\$1.66	\$5.10	\$0.00	\$6.76	\$511.11 \$1,502.22	
	of ROC at pit	37	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$74.07	
Loading of F	•	37.	CY	\$0.39	\$1.91	\$0.00	\$2.30	\$85.19	
	C, 10 mi round trip	37	CY	\$1.66	\$5.10	\$0.00	\$6.76	\$250.37	
Prepare and	I roll subbase, small area	222	SY	\$0.43	\$0.63	\$0.00	\$1.06	\$235.56	
Spread/Corr	npact ROC, 6" lifts	222	SY	\$0.31	\$0.59	\$0.00	\$0.90	\$200.00	
Geotechnica	ə l	1	EA	\$67.67	\$0.00	\$86.98	\$154.65	\$154.65	
SUBTOTAL								\$3,457.61	
Area Cost F							69%	\$2,386	
SUBTUTAL	(Local and Means)							\$3,493	
Subcontract	or Overhead						5%	\$174.66	
SUBTOTAL								\$3,667.82	
Subcontracte	or Profit						10%	\$366.78	
SUBTOTAL								\$4,034.60	
	ON (Subcontractor)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
	nsity (Means)	1	EA	\$0.00	\$0.00	\$0.00	\$26.68	\$26.68	
Geotextile		222	SY	\$0.00	\$0.00	\$0.00	\$1.50	\$333.33	
SUBTOTAL								\$360.02	
SUBTOTAL	(Local, Means and Sub)							\$4,394.62	
Contractor C	Overhead						5%	\$219.73	
SUBTOTAL			•				٠.	\$4,614.35	
Contractor P	rofit						10%	\$461.43	-
TOTAL UNIT	T COST/100 LF				,		<i>'</i> -	\$5,075.78	
Source of C	ost Data: Soil material quotes from local borro	w saure							
	-	000,00.							÷
Cost Adjust	ment Factor:								
	FACTOR:			NOTES:	•				
	H&S Productivity (labor & equip)			Level D					
	Escalation to Base Year	· 💳		Escalation I	Factor of 1 (00 for base	vear of 2001	cost information	n 2000
							•		2000
	Area Cost Factor	X		U.69 localiz	ation factor	tor 052 zip	code (Means)	<i>}</i>	
•	Subcontractor Overhead & Prof.	Х		Assuming r	narkup of 16	0% each for	both Overhe	ad and Profit.	•
	Prime Contractor Overhead & Prof.	X		Assuming o	narkon of 16)% each for	hoth Overbo	ad and Profit.	
				- woodining in	nop or 11	C TO COOLLIO	Jour Overne	ac and r rom.	

Common Costs Capital Cost Sub-Element TEMPORARY ACCESS ROADS (COST PER 10)	n er			V - 11-11-11		COST	WORKSHEE	
TEMPORARI ACCESS ROADS (COST PER 10)	JEF					0001	VVOIMONE	
Site: Pownal Tannery Site								
Location: Pownal, Vt				•				
Phase: Feasibility Study Base Year: 2001								
Date: Apr-01								
				••				
Work Statement: Install temporary access roads for tra	ansport of	excavate	d materials.	1 foot of 4"	to 6" ROC.			
Cost Analysis:						บทเา		
DESCRIPTION (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Common Fill - Subgrade	0	TON	\$0.00	\$0.00	\$3.00	\$3.00	\$0.00	
Crushed Stone	48.1	TON	\$0.00	\$0.00	\$5.00	\$5.00	\$240.74	
SUBTOTAL							\$240.74	
DESCRIPTION (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Excavation of Fill at pit	Ð	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$0.00	
Loading of Fill at pit	0	CY	\$0.39	\$1.91	\$0.00	\$2.30	\$0.00	
Hauling Fill, 10 mi round trip	0	CY	\$1.66	\$5.10	\$0.00	\$6.76	\$0.00	
Excavation of ROC at pit	37	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$74.07	
Loading of ROC at pit Hauling ROC, 10 mi round trip	37 37	CY	\$0.39 \$1.66	\$1.91 \$5.10	\$0.00 \$0.00	\$2.30 \$6.76	\$85.19 \$250.37	
Prepare and roll subbase, small area	222	SY	\$0.43	\$0.63	\$0.00	\$1.06	•	
Spread/Compact ROC, 6" lifts	222	SY	\$0.31	\$0.59	\$0.00	\$0.90	\$200.00	
Geotechnical	1	EA	\$67.67	\$0.00	\$86.98	\$154.65	\$154.65	
SUBTOTAL					•		\$999.84	
Area Cost Factor SUBTOTAL (Local and Means)						69%	\$690 \$931	
							A	
Subcontractor Overhead SUBTOTAL						5%	\$46.53 \$977.16	
Subcontractor Profit						10%	\$97.72	
SUBTOTAL						, 1576	\$1,074.87	
DESCRIPTION (Subcontractor)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
In-Place Density (Means)	1	ÉA	\$0.00	\$0.00	\$0.00	\$26.68	\$26.68	
Geotextile	222	SY	\$0.00	\$0.00	\$0.00	\$1.50	\$333.33	
SUBTOTAL							\$360.02	
SUBTOTAL (Local, Means and Sub)							\$1,434.89	
Contractor Overhead						5%	. \$71.74	
SUBTOTAL						4004	\$1,506.63	
Contractor Profit						10%	\$150.66	
TOTAL UNIT COST/100 LF	•						\$1,657.30	
Source of Cost Data:					•			
Soil material quotes from local borro	w source.						3	
Cost Adjustment Factor:								
FACTOR:			NOTES:					
H&S Productivity (labor & equip)			Level D	• .			٠,	
Escalation to Base Year			Escalation	Factor of 1	00 for base	vear of 2001.	cost information 2000	ı
Area Cost Factor	×				•	code (Means		
Subcontractor Overhead & Prof.	Х		Assuming r	markup of 1	0% each for	r both Overhe	ad and Profit.	
Prime Contractor Overhead & Prof.	Х		Assuming r	markup of 1	0% each fo	r both Overhe	ad and Profit.	
l								

Alternative 7									\neg
Capital Cost	Sub-Element						ОООТ	MODICOLIMA	
PERIMETER	RENCE						COST	WORKSHEE	. 1
Site:	Douglat Tangan, Cha								
Location:	Pownal Tannery Site Pownal, Vt								
Phase:	Feasibility Study						•	•	ı
Base Year:									
Date:	Apr-01								
Work Stater	ment.							· · · · · · · · · · · · · · · · · · ·	\dashv
TOOK OLDICA	Assuming completion time of 3 w outside perimeter of Lagoons; ins 1 diameter.	eeks. Re stall fence	move exist post every	ing fence ar / 10' with co	round Lago ncrete pads	ons 1 & 2; (s placed to a	Construct fence a depth of 4" a	e around nd having a	
Cost Analys	sis:								
	DESCRIPTION sting d Chain-Link Fence	QTY 1 2300	UNIT 2000 LF LF	LABOR - \$1.31	EQUIP - \$0.00	MTRL \$26.17	UNIT TOTAL \$40,000.00 \$27.48	TOTAL \$56,000.00 :\$63,204.00	
SUBTOTAL								\$119,204.00	
									- 4
									- 1
									- 1
Contractor O	verhead						5%	\$5,960.20	- 1
SUBTOTAL							0,2	\$125,164.20	- 1
Contractor Pr	rofit						10%	\$12,516.42	
TOTAL HANDT	7200						1		- 1
TOTAL UNIT	COST							\$137,680.62	
)		
								•	-
									- 1
			-						
	•								
									- 1
								•	I
							•		
Source of Co	oot Dotes								
	Building Construction Cost Data, I Environmental Remediation Cost	RS Means Data, RS	s, 58th Edit Means, 6th	ion, 2000 n Edition, 20					ı
Cost Adjustn	nent Factor:								١
	FACTOR: H&S Productivity (labor & equip)			NOTES: Level D					
	Escalation to Base Year	\vdash			notor - 5 4 4	DO 602 4			
	Area Cost Factor	片						cost information 2000	Ī
		LX.					code (Means)	•	Ī
	Subcontractor Overhead & Prof.	LX			-		both Overhea		
	Prime Contractor Overhead & Pro	I. X		Assuming m	arkup of 10	0% each for	both Overhea	id and Profit.	-

OMMON COS I apital Cost Sub-Element							
ACKFILL LAGOON 2	•	·				COST	WORKSHE
ite: Pownal Tarmery Site ocation: Pownal, Vt hase: Feasibility Study ase Year: 2001 ate: Apr-01							
ork Statement: In-place density at 1 Test/acre/6"	lift over 10 t	ft corresp	onds to 20 li	its for rough	ly 2 acres.		
ost Analysis:							
ESCRIPTION (Local) common Fill to Elev. 508' cravel to Elev. 510' (1.5" crushed)	QTY 30,976 7,744	UNIT TON TON	LABOR \$0.00 \$0.00	EQUIP \$0.00 \$0.00	MTRL \$3.00 \$5.50	UNIT TOTAL \$3.00 \$5.50	TOTAL \$92,928.00 \$42,592.00 \$135,520.00
ESCRIPTION (Means) xcavalion of Fill at pit pading of Fill at pit auling Fill, 10 mi round trip preading in 8" layers, small dozer ompaction Fill, 6" to 12" lifts, vibrating roller	QTY 25,813 25,813 25,813 25,813 25,813	UNIT CY CY CY CY CY	\$0.34 \$0.39 \$1.66 \$0.30 \$0.40	EQUIP \$1.66 \$1.91 \$5.10 \$0.76 \$1.15	MTRL \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$2.00 \$2.30 \$6.76 \$1.06 \$1.55	TOTAL \$51,626.67 \$59,370.67 \$174,498.13 \$27,362.13 \$40,010.67
UBTOTAL							\$352,868.27
rea Cost Factor UBTOTAL (Local and Means)						69%	\$243,479 \$378,999
ubcontractor Overhead UBTOTAL ubcontractor Profit UBTOTAL						5% 10%	\$18,949.96 \$397,949.06 \$39,794.91 \$437,743.97
ESCRIPTION (Subcontractor) -Place Density (Means)	QTY 40	UNIT EA	LABOR \$0.00	EQUIP \$0.00	MTRL \$0.00	TOTAL \$26.68	TOTAL \$1,067.29
BTOTAL (Local, Means and Sub)							\$438,811.26
ontractor Overhead JBTOTAL ontractor Profit			·	:		5% 10%	\$21,940.56 \$460,751.82 \$46,075.18
DTAL UNIT COST			•		•		\$506,827.00
ource of Cost Data: Local costs obtained from borrov Building Construction Cost Data,			ion, 2000				
ost Adjustment Factor:							
FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor	X		0.69 localiz	ation factor	for 052 zip	code (Means	_
Subcontractor Overhead & Prof. Prime Contractor Overhead & Pr	of. X		-	-			ead and Profit. ead and Profit.

Common Co					-				<u> </u>
	t Sub-Element	<u>.</u>					200	T WODIC	
DECONTAM	MINATION PAD - HEAVY EQUIPMENT	r (PER	EACH)		····		CUS	ST WORKS	HEEI
Site:	Pownal Tannery Site								
Location:	Pownal, Vt		•						
Phase:	Feasibility Study						•		
Base Year:									
Date:	Apr-01								
Work Stater	ment:						·		
	Pad size 25 x 65; thickness of 8 inch	ies.			•				
Cost Analys	sis:								
DESCRIPTION	ON	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
Constructio						*****		101	
Concrete page	d - 8"	40	ĊY	\$78.00	\$0.98	\$116.00	\$194.98	\$7,823.27	
Gravel base	- 6"	30	CY	\$1.52	\$1.62	\$18.43	\$21.57	\$649.10	
Curb		180	LF	\$0.68	\$0.00	\$1.06	\$1.74	\$313.20	
	construction, incl ex & gravel, pit	75	CF	\$0.46	\$0.16	\$0.56	\$1.18	\$88.50	
_	vel collar, 12" pipe, corrugated, 16ga	180	LF	\$8.25	\$2.90	\$11.90	\$23.05	\$4,149.00	
SUBTOTAL	:			•				\$13,023.07	
Area Cost Fa	actor					4	69%	\$8,986	
SUBTOTAL							09%	\$22,009	
Subcontracto	or Overhead						5%	\$1,100.45	
SUBTOTAL							376	\$23,109.44	
Subcontracto	or Profit						10%	\$23,109.44 \$2,310.94	
SUBTOTAL							7070	\$25,420.38	
Contractor O)verhead						5%	\$1,271.02	
SUBTOTAL	·						0,0	\$26,691.40	
Contractor P	rofit						10%	\$2,669.14	
TOTAL UNIT	r cost							\$29,360.54	
								₩20,000.0	
Operation:			~ ***	***			*		
4" Dia Comia	actor's Trash Pump, 300 GPM	1	DAY	\$10.41	\$0.00	\$59.19	\$69.60	\$69.60	
Area Cost Fa	actor						69%	\$48	
SUBTOTAL								\$118	
Subcontracto	or Overhead						5%	\$5.88	
SUBTOTAL								\$123.51	
Subcontracto	or Profit						10%	\$12.35	
SUBTOTAL								\$135.86	
Contractor O	verhead						5%	\$6.79	
SUBTOTAL	51							\$142.65	
Contractor Pr	rotit						10%	\$14.26	
TOTAL UNIT	COST							\$156.91	
Source of Co	ost Data:								
	Building Construction Cost Data, RSI Environmental Remediation Cost Data	Means,	58th Edit	ion, 2000 h Edition, 20	Λ Ω				
Cant Adinate	•	10, 100	Mounty ou	II London, 20.	00				
Cost Adjustn	nent Factor;								
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)			Level D					
	Escalation to Base Year			Escalation I	Factor of 1.	00 for base y	ear of 2001,	, cost information	2000
	Area Cost Factor	X		0.69 localiza	ation factor	for 052 zip c	ode (Means	42	
	Subcontractor Overhead & Prof.	X				•	•	ead and Profit.	
	Prime Contractor Overhead & Prof.	X		Assuming n	narkup of 1	0% each for	both Overhe	ead and Profit.	
	+								

Capital Cost Sub-Element							COST I	NORKS	HEET
DECONTAMINATION PAL	DS - PERSONNEL	···				· · · · · · · · · · · · · · · · · · ·	COST	VOINIO	ILLI
Site: Pownal Tann Location: Pownal, Vt Phase: Feasibility St Base Year: 2001 Date: Apr-01	-			·	<u>-</u>	·			
Work Statement: Pad size 6 x	6; thickness of 4 inche	s							
Cost Analysis:									
DESCRIPTION Concrete - 4" Gravel base - 4" Curb SUBTOTAL		QTY 0.44 0.44 24	UNIT CY CY LF	LABOR \$78.00 \$1.52 \$0.68	EQUIP \$0.98 \$1.62 \$0.00	MTRL \$116.00 \$18.43 \$1.06	UNIT TOTAL \$194.98 \$21.57 \$1.74	TOTAL \$86.66 \$9.59 \$41.76 \$138.00	
Area Cost Factor SUBTOTAL							69%	\$95 \$233	
Subcontractor Overhead SUBTOTAL Subcontractor Profit SUBTOTAL Contractor Overhead SUBTOTAL Contractor Profit							5% 10% 5% 10%	\$11.66 \$244.89 \$24.49 \$269.38 \$13.47 \$282.85 \$28.28	
TOTAL UNIT COST								\$311.13	
	٠								_
						·			
	struction Cost Data, Ra al Remediation Cost D				00				
Cost Adjustment Factor:									
	OR: fivity (labor & equip) Base Year .			NOTES: Level D Escalation	Factor of 1.	00 for base y	year of 2001,	cost informati	on 2000
Area Cost Fa	•	X				·	code (Means)		
	or Overhead & Prof. actor Overhead & Prof.	X		_	•			ad and Profit. ad and Profit.	

E

Site:	Pownal Tannery Site							
Location: Phase:	Pownal, Vf Feasibility Study						•	
Base Year: Date:	2001 Apr-01							
Work Staten								
Cost Analys	One 300 GPM pump operating for is:	24hrs/day	r. Pumpin	ig assumed t	to take 1 we	ek to comple	ete.	
l								
· -							UNIT	
DESCRIPTION		QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
	actor's Trash Pump, 300 GPM	7	DAY	\$10.41	\$0.00	\$59.19	\$69.60	\$487.20
Trash pump i Hose water	rental suction w/coupling, 20°L, 4° dia	0.38	MO MO	\$0.00 \$0.00	\$825.00 \$180.00	\$0.00	\$825.00 \$180.00	\$309.38 \$67.50
	suction w/coupling, 20°L, 4° dia ose w/coupling, 50°L, 4° dia	0.38 0.38	MO MO	\$0.00 \$0.00	\$180.00 \$120.00	\$0.00 \$0.00	\$180.00 \$120.00	\$67.50 \$45.00
Laborers	ac attoospings on as 1 and	7	DAY	\$500.00	\$0.00	\$0.00	\$500.00	\$3,500.00
SUBTOTAL				·				\$4,409.08
- Cont En							200/	#0.049
Area Cost Fa SUBTOTAL	ctor						69%	\$3,042 \$7,451
SOBIGIAL		÷						\$1,401
Subcontracto	r Overhead						5%	\$372.57
SUBTOTAL	i e							\$7,824
Subcontracto	τ Profit						10%	\$782
SUBTOTAL Contractor O	··-shood						5%	\$8,606.29 \$430.31
SUBTOTAL	/eneau						3/0	\$9,036.61
Contractor Pr	rofit						10%	\$903.66
	•							
TOTAL UNIT	COST/ROUND						•	\$9,940
į	1							
ı								
: •								
į								
r		-						
l								
ı								•
Source of Co		-o.t. E.		* 1 1 non			!	
: :	Construction Cost Data, RS Means Environmental Remediation Cost B					m an onyo	ng project.	
Cost Adjustr	ment Factor:							
	FACTOR:			NOTES:				
	H&S Productivity (labor & equip)			Level D				
	- ·				Eactor of 1	nn for base	war of 2001.	cost information 2
	Escalation to Base Year	t l		"SCHIMIUH			your or all	SUSE IIII C
	•	H						
	Area Cost Factor	X		0.69 localiz	zation factor	for 052 zip o	code (Means)	
	•	X		0.69 localiz	zation factor	for 052 zip o	code (Means) r both Overhea	

the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the section of the second section of the section of

Common Co Capital Cost	st Sub-Element						COST	MODIONE	
	EAT. OF STANDING WATER IN LAGO	ONS					COST	<u>WORKSHE</u>	
Site:	Pownat Tannery Site								
Location:	Pownal, Vt			÷					
Phase:	Feasibility Study								
Base Year: Date:	2001 Apr-01								
Work Staten									
yyork States	Treat standing water in Lagoons 1, 2, 2,000 lbs carbon/100,000 gals; 20,000 holds 1,000 lbs of carbon and treats 5 operating for 24 hrs. Time to complete lined with geotextile and backfilled with dewatering event for duration of project.	0 gal/Frac ta 0 gal/min ol e = 1.5 wks h riprap. Es	ank storag f flow. Tre . Discharç	e 8 carbon v atment volui je treated wa	essels (2 v me: 2,841,i ater to 2 on	essels/Carbor 000 gals; pumj site infiltration	unit); each voing rate of 30 galleries (20	essels 20 gal/min	
Cost Analys	is:						."		
							UNIT		
DESCRIPTION	ON (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
	gmentation Tanks	0.25	MO	\$0.00	\$0.00	\$30,000.00	\$30,000.00	\$7,500.00	
Rental of Ca	rbon Equipment & Operation (8 Units)	1.00	WK .	\$0.00	\$0.00	. \$12,000.00	\$12,000.00	\$12,000.00	
Dewatering (0.25	MO		-	-	\$1,000.00	\$250.00	
Material Cos	t - Carbon	30000	LB	\$0.00	\$0.00	\$0.65	\$0.65	\$19,500.00	
Delivery Disposal of (Carbon	1 30000	LS LB	\$0.00	\$0.00	\$1.00	\$10,000.00 \$1.00		
Geotextile	Salbon	22	SY	φυ.υυ -	\$0.00 -	\$1.00	\$1.50	\$30,000.00 \$33.33	
							•	\$79,283.33	
DESCRIPTION OF THE PROPERTY OF	ON (Means)								
Analytical Te		12	EA	\$0.00	\$0.00	\$1,545.00	\$1,545.00	\$18,540.00	
Rock Cover,	Riprap, Light (10 to 100 lb)	37	CY	\$3.00	\$2.38	\$15.06	\$20.44 j	\$757.04 \$19,297.04	
Area Cost Fa	actor						69%	\$13,315	
SUBTOTAL	(Local & Means)							\$92,598.29	
Subcontracto	or Overhead						5%	\$4,629.91	
SUBTOTAL				•				\$97,228	
Subcontracto	or Profit						10%	\$9,723	
SUBTOTAL Contractor O	werhead					•	5%	\$106,951.02 \$5,347.55	
SUBTOTAL							070	\$112.298.57	
Contractor P	rofit						10%	\$11,229.86	
TOTAL UNIT	COST/WK							\$123,528	
			•						
Source of C	ost Data: Local costs from an ongoing project; 6 Construction Cost Data, RS Means, 5 Environmental Remediation Cost Data	8th Edition,	2000; Loc	al cost estin		n ongoing proj	ect.		
Cost Adjust	ment Factor:						-		
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)			Level D					
	Escalation to Base Year			Escalation	Factor of 1	.00 for base w	ear of 2001 o	ost information 2000	
							•		
	Area Cost Factor	X				r for 052 zip co	,		
	Subcontractor Overhead & Prof.	X		Assuming r	markup of 1	10% each for b	oth Overhead	d and Profit.	٠
	Prime Contractor Overhead & Prof.	Х		Assuming r	markup of 1	10% each for b	oth Overhead	d and Profit.	

Alternative 7	-								
	Sub-Element						ഗവാ	r worksh	CET
EXCAVATIO	IN						000	WONISI	
Site:	Pownat Tannery Site						-		i
Location:	Pownal, Vt								i
Phase:	Feasibility Study								
Base Year:	2001								
Date:	Apr-01								
Work Staten	nent:								
	Excavate contaminated material and	l transport	to dewat	ering/staging	area.				
Cost Analys	is:							•	
					_				
DESCRIPTION	ON	QΤΥ	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL	
	Truck, 6 mil liner, disposable	690	EA	\$0.00	\$0.00	\$28.50	\$28.50	\$19,665.00	ļ
Truck bed co		6,900	SY	\$0.16	\$0.00	\$1.53	\$1.69	\$11,661.00	•
	soil & stockpiling, sandy loam	0,000	٠.	40.10	40.00	41.00	41.00	Ψ11,001.00	I
400 HP doz	er, adverse conditions	10,648	CY	\$0.16	\$0.70	\$0.00	\$0.86	\$9,157.28	- 1
Excavation -	Level B	18,216	CY	\$0.48	\$2.66	\$0.00	\$3.14	\$57,177.83	ĺ
Excavation		36,488	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$72,975.25	ľ
-	watering pads or consolidation area	54,704	CY	\$0.63	\$1.55	\$2.18	\$4.36	\$238,509.83	ŀ
	ewatering pads	10,440	CY	\$0.34	\$1.66	\$0.00	\$2.00	\$20,880.00	I
SUBTOTAL								\$430,026.19	
Area Cost Fa	ector						69%	\$296,718	
Subcontracto	or Overhead						5%	\$14,835.90	ļ
SUBTOTAL							0.0	\$311,554	- 1
Subcontracto	or Profit						10%	\$31,155.40	1
SUBTOTAL								\$342,709	1
Contractor O	verhead						5%	\$17,135.47	1
SUBTOTAL								\$359,845	
Contractor Pr	rofit						10%	\$35,984	- 1
								- 	- 1
	•							\$395,829.33	1
									. 1
		•			•				ļ
									ľ
									ı
									i i
		-							1
Source of Co									I
-	Building Construction Cost Data, RS	Means, 5	8th Editio	n, 2000					- 1
	Environmental Remediation Cost Da	ita, RS Me	ans, 6th I	Edition, 2000				•	- 1
Cost Adjusti	ment Factor:			•					ŀ
	FACTOR:			NOTES:					
	H&S Productivity (labor & equip)	Х			excavation (of contam. m	aterial; 42%	Labor & 60% Equipm	nent :
	Escalation to Base Year			Escalation F	actor of 1.0	00 for base y	ear of 2001, c	cost information 200)
	Area Cost Factor	X		0.69 localiza	ation factor	for 052 zip c	ode (Means)		
	Subcontractor Overhead & Prof.	Х		Assuming n	narkup of 10	0% each for t	ooth Overhea	d and Profit.	1
	Prime Contractor Overhead & Prof.	X		Assuming p	narkum of 10	1% each for h	ooth Overhea	d and Profit	

Alternative / Capital Cost	Sub-Element								
ODOR SUPP							COST	WORKS	SHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01		1_			-	-		
Work Staten	nent:				-				
	Application of foam odor suppres	sant dunn	ig excavation	on of contar	ninated mat	erial.			
Cost Analysi	is:								
DESCRIPTIC Equipment R Labor Material cost SUBTOTAL	ental	QTY 5.75 2 1	UNIT MO WK 1800 LBS	LABOR \$2,600.00	EQUIP \$2,000.06 - -	MTRL - - \$1,478.00	UNIT TOTAL \$2,000.00 \$2,600.00 \$1,478.00	TOTAL \$11,500.00 \$5,200.00 \$1,478.00 \$18,178.00	
Area Cost Fa SUBTOTAL	ctor		·						
Contractor O SUBTOTAL Contractor Pi							5% 10%	\$908.90 \$19,086.90 \$1,908.69	
TOTAL UNIT	COST					•		\$20,995.59	
Source of Co	ost Data: Equipment and material costs fro	m an ong	oing project	L					
Cost Adjustr	ment Factor:				-				
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X of. X		0.69 localiz	ration factor markup of 1	for 052 zip o 0% each for	year of 2001, code (Means) both Overhea both Overhea	ed and Profit.	on 2000

Common Co Canital Cost	sts Sub-Element							
	NG STRUCTURES						COST	WORKSHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01	·						
							_	
Work Staten	nent: Construction costs for a dewatering treatment.	structure	e, 30' x 40	r, to store sa	turated con	taminated m	naterial befor	'e
Cost Analys	sis:			•				
DESCRIPTION	ON (Local) erm (12" height min) Construction	QTY.	UNIT	LABOR	EQUIP	MTRL	UNIT TOTAL	TOTAL
Penners se	Material - Fill	53.9	TON	\$0.00	\$0.00	\$3.00	\$3.00	\$161.78
Concrete Ra	of subsurface to slope to low point	QTY 133 2 373	UNIT SY EA SY	\$0.39 \$203.93 \$0.31	EQUIP \$0.50 \$0.00 \$0.59	MTRL \$0.00 \$318.26 \$0.00	**TOTAL	TOTAL \$118.67 \$1,044.38 \$336.00 \$1,499.05
Area Cost Fa	actor (Means and Local)		. ,				69%	\$1,499.05 \$1,034 \$1,196
Subcontractor SUBTOTAL Subcontractor SUBTOTAL							5% 10%	\$59.81 \$1,256 \$126 \$1,381.52
Geomembra	ON (Subcontractor) ne Liner (40mil thickness min) onwoven, 12oz	QTY 1200 133	UNIT SF SY	LABOR \$0.00 \$0.00	EQUIP \$0.00 \$0.00	MTRL \$0.00 \$0.00	TOTAL \$1.00 \$1.50	TOTAL \$1,200.00 \$200.00 \$1,400
SUBTOTAL	(Local, Means and Sub)							\$2,781.52
Contractor O SUBTOTAL Confractor P TOTAL UNIT	rofit				•		5% 10%	\$139.08 \$2,920.59 \$292.06
Source of C	iost Data: Construction Cost Data, RS Means Environmental Remediation Cost D Installed costs from local subcontra	ata, RS I			00			
Cost Adjust	ment Factor:				÷			
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof.	X X		Escalation I	Factor of 1. ation factor	r for 052 zip i	year of 2001 code (Means	, cost information 2000 s) ead and Profit.
	Prime Contractor Overhead & Prof.	Х		Assuming r	narkup of 1	0% each for	r both Overhe	ead and Profit.

Cammon Coots								
Common Costs Capital Cost Sub-Element								
LEVEL B EQUIP & MATERIALS						COS	T WORK	SHEET
						<u> </u>	1 44 (2) (1	OHELI
Site: Pownal Tannery Site								
Location: Pownal, Vt								
Phase: Feasibilty Study		•						
Base Year: 2001								
Date: Apr-01					•			
Work Statement:					*			
HOLK Statement.						•		
Cost Analysis:								
DESCRIPTION	QTY	UNIT	LABOR	EQUIP	BATO:	TOTAL	TOTAL	
Capital Costs (Per Person):	Q I I	OMI	LABOR	EQUIF	MTRL	TOTAL	TOTAL	
SCBA - Rescue, 30min, 2216psi	1	EA	\$0.00	to on	#4 040 CE	P4 040 CE	E4 040 CE	
Cascade Airline Kit, Four cylinder	1	EA	\$0.00	\$0.00 \$0.00	\$1,819.65	\$1,819.65		
Low Pressure Warning Alarm	1	EA			\$662.50	\$662.50	\$662.50	
MSA Constant Flow Airling Respirators - Full	1		\$0.00	\$0.00	\$220.00	\$220.00	\$220.00	
Neoprene Hose, 501.	4	EA	\$0.00	\$0.00	\$446.65	\$446.65	\$446.65	
MSA Kwik-Draw Pump	1	EA	\$0.00	\$0.00	\$257.05	\$257.05	\$1,028.20	
Galvanized Gas Cylinder Safety Cabinet		EA	\$0.00	\$0.00	\$325.00	\$325.00	\$325.00	
Gas Cylinder Tags, Labels & Signs	0.2	EA	\$0.00	\$0.00	\$621.00	\$621.00	\$124:20	"
	0.2	PKG	\$0.00	\$0.00	\$10.75	\$10.75	\$2.15	
SUBTOTAL							\$4,628.35	
Subsentractor Profit						4007	6.400	
Subcontractor Profit						10%	\$463	
SUBTOTAL ,							\$5,091	
D: 0-41B51					•			
Prime Contractor Profit						10%	\$509	
TOTAL UNIT COST							\$5,600	ĺ
Monthly Costs:								
Nitrile gloves	4	BOX	\$0.00	\$0.00	\$18.80	\$18.80	\$75.20	
Nitrite gloves dispenser pack - outer	4	BOX	\$0.00	\$0.00	\$159.65	\$159.65	\$638.60	
Tyvek 1A-25029	200	EA ·	\$0.00	\$0.00	\$6.65	\$6.65	\$1,330.00	
Latex Overboots	200	PAIR	\$0.00	\$0.00	\$3.45	\$3.45	\$690.00	
Duct Tape	50	ROLL	\$0.00	\$0.00	\$11.45	\$11.45	\$572.50	
Caution Tape	20	ROLL	\$0.00	\$0.00	\$5.00	\$5.00	\$100.00	
Walkie Talkies - Rent	6	MO	\$0.00	\$0.00	\$120.00	\$120.00	\$720.00	
Industrial Scientific MG140 gas meter	3	МО	\$0.00	\$0.00	\$400.00	\$400.00	\$1,200.00	•
103L Cylinder of CO, H2S, O2, Pentane Cal gas	0.5	CYL	\$0.00	\$0.00	\$300.00	\$300.00	\$150.00	
Flame-ionization detector - Rent	3	MO	\$0.00	\$0.00	\$640.00	\$640.00	\$1,920.00	
Respirator Wipe Pads	10	PKG	\$0.00	\$0.00	\$15.10	\$15.10	\$151.00	
MSA Detector Tubes - H₂S	25	PKG	\$0.00	\$0.00	\$53.40	\$53.40	\$1,335.00	
Compressed air 2.2 UN1002-T 311 CF	30	CYL	\$0.00	\$0.00	\$30.00	\$30.00	\$900.00	
316 T UHP Hydrogen Gas	10	CYL	\$0.00	\$0.00	\$125.00	\$125.00	\$1,250.00	
SUBTOTAL						-	\$11,032.30	
						-	4.1,000.00	
Subcontractor Profit		•				10%	\$1,103	
SUBTOTAL							\$12,136	-
							\$ 72,100	
Prime Contractor Profit						10%	\$1,214	
						7070	Ψ1,217	
TOTAL UNIT COST							\$13,349	
TOTAL SINIT GOOT							\$13,343	
CYL = cylinder								
Source of Cost Data:								
Local vendors.								
Local vendors.								
Cost Adjustment Factor:								
FACTOR:			NOTES:					i
				blo				
H&S Productivity (labor & equip)	لييا	-	Not Applica	wie			•.	
Escalation to Base Year			Base year o	costs				
Area Cost Easter	=				-			
Area Cost Factor	لب		Not applica	niê				
Subcontractor Profit.	X		Assuming r	narkup of 1	10% for Profit.			
Prime Contractor Profit.	—		_	•				
Finne Contractor Front.	LX		Assuming r	нагкир от 1	10% for Profit.	. ,		

Altemative 7 Capital Cost BACKFILL	Sub-Element						COS	T WORKSH	FFT
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								
Work Staten	nent: Backfill excavated contaminated so Backfill 75% of Lagoon 1 to Elev. 5 Assumed for costing that all of the	10' = 3.3 acre	s x 5 ft.	cluding cover	soils, is plac	ced under ca	ρ.		
Cost Analys	is:			•				•	
DESCRIPTIO Backfill Exca	ON vated Material with Common Fill	QTY 65,552	UNIT CY	LABOR \$0.86	EQUIP \$1.98	MTRL \$5.06	UNIT TOTAL \$7.90	TOTAL \$517,858.75	
SUBTOTAL							•	\$517,858.75	
Area Cost Fa	actor						69%	\$357,323	
Subcontractor SUBTOTAL Subcontractor SUBTOTAL Contractor O SUBTOTAL Contractor Pi	or Profit verhead						5% 10% 5% 10%	\$17,866.13 \$375,189 \$37,518.87 \$412,708 \$20,635.38 \$433,343 \$43,334.29	
TOTAL ÚNIT	COST							\$476,677.20	
			-				·		
·									
Source of Co				-			-		
	Environmental Remediation Cost D	ata, 'RS Mear	ns, 6th Ed					•	
Cost Adjustr	nent Factor:			: .	•				•
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X		0.69 localization	ation factor f narkup of 10	for 052 zip co 1% each for b			

Alternative 7					··				
Capital Cost SOLIDIFICA							cos	T WORKSH	EET
Site: Location: Phase: Base Year: Date:	Pownat Tannery Site Pownat, Vt Feasiblity Study 2001 Apr-01		,		·				
Work Staten	nent: Solidify/stabilize excavated mate and also to provide their own dea			ed to provide	e their own o	conveyors, sc	reens arid s	silos	
Cost Analys	is:								
DESCRIPTION Reagents Handling to person Soil treatmer Soil placeme SUBTOTAL	rocessor	QTY 54,704 54,704 54,704 54,704	UNIT TON TON TON TON	LABOR - - - -	EQUIP - - - -	MTRL - - - -	UNIT TOTAL \$7.00 \$1.25 \$12.00 \$4.50	TOTAL \$382,928.62 \$68,380.11 \$656,449.07 \$246,168.40 \$1,353,926.20	
SUBTOTAL Prime Contra	ictor Overhead ictor Profit			·			5% 10%	\$67,696 \$1,421,622.51 \$142,162.25	
SUBTOTAL	•				:			\$1,563,784.76	
Source of C	ost Data: Engineering judgement and expe	erience includi	ng projec	t bids receive	ed from pote	ential subcon	tractors, Sp	ning/2001.	
Cost Adjustr	nent Factor:								
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Pr			Assuming (costs I, special ap narkup of 1	0% each for t		ead and Profit. ead and Profit.	

.

Allemative 7 Canital Cost	Sub-Element							
	N & TREATMENT OF LEACHAT	E					COST	WORKSHEET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01							
Work Staten	nent.		· · · · · · · · · · · · · · · · · · ·					
YOR OLDER	Estimated time to complete exca dewater Lagoon 4 during cap ins discharge into onsite infiltration g	tallation. An	alytical n	nonitoring for	compliand	e 40 CFR 26	1 before dire	cl
Cost Analys	is:							
DESCRIPTIO	DN (Local)	QTY	UNIT	LABOR	EQUIP	MTRL	UNIT	TOTAL
	gmentation Tanks (2 Units)	7.5	MO	\$0.00	\$0.00	\$3,000.00	\$3,000.00	\$22,500.00
Rental of Car Material Cos	ton Equipment & Operation	30 10000	WK LB	\$0.00 \$0.00	\$0.00 \$0.00	\$1,500.00 \$0.65	\$1,500.00	\$45,000.00 \$6,500.00
	it - Carbon ition of Frac. Tanks	2	EA	\$0.00 \$0.00	\$0.00 \$0.00	\$0.00 \$1,000.00	\$0.65 \$1,000.00	\$6,500.00 \$2,000.00
Disposal of C	Carbon	10000	LB	\$0.00	\$0.00	\$1.00	\$1.00	\$10,000.00 \$86,000.00
DESCRIPTION	ON (Means)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL
Analytical Te		10	EA	\$0.00	\$0.00	\$1,545.00	\$1,545.00	\$15,450.00
Hay Bales, S	taked over, 135lb Tear	4800 1452	l.f Sy	\$0.21	\$0.07	\$2.00	\$2.28	\$10,944.00
SUBTOTAL	•	1452	51	\$0.16	\$0.00	\$1.53	\$1.69	\$2,453.29 \$28,847.29
Area Cost Fa	ictor (Local and Means)						69%	\$19,905 \$105,905
	•							
Subcontracto	or Overhead						5%	\$5,295.23
SUBTOTAL Subcontracto	r Profit						10%	\$111,200 \$11,119.99
SUBTOTAL					-		1075	\$122,319.85
Contractor O	verhead						5%	\$6,116
SUBTOTAL Contractor Page 19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	~ Gt						4007	\$128,436
CONTRACTOR F	Oik						10%	\$12,843.5B
TOTAL UNIT	COST							\$141,279.43
Source of C	ost Data:			,				
	Local costs from an ongoing proj Construction Cost Data, RS Mea Environmental Remediation Cost	ns, 58th Edi		-		rom an ongoii	ng project.	
Cost Adjusti	ment Factor:							
	FACTOR: H&S Productivity (labor & equip)			NOTES: Level D	-			
	Escalation to Base Year			Escalation	Factor of 1	.00 for base	year of 2001,	cost information 2000
	Area Cost Factor	X		0.69 localiz	ation facto	r for 052 zip o	code (Means))
	Subcontractor Overhead & Prof.	X				•	•	ad and Profit.
	Prime Contractor Overhead & Pr			_	•			ad and Profit.

Alternative 7 Capital Cost	Sub-Element								
GEOSYNTH							COST	WORKS	HEET
Site: Location: Phase: Base Year: Date:	Pownat Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								·
Work Stater	ment:	<u> </u>							
·	Cap consists of a layer of geote	extile under a 1	.5' thick I	ayer of comr	non fill and :	a 6" layer of	topsoil.		
Cost Analys	is:			7					
DESCRIPTION	n.	QTY	LINUT	LABOR	FOUR	10714	UNIT	TOTAL	
Geotextile	JN	25,168	UNIT SY	LABOR	EQUIP -	MTRL -	TOTAL \$1.50	TOTAL \$37,751.62	
SUBTOTAL	- Local							\$37,751.62	
Prima Cantr	actor Overhead						£0/	#4 000	
SUBTOTAL							5%	\$1,888 \$39,639	
Prime Contra	actor Profit						10%	\$3,964	
TOTAL UNIT	COST							\$43,603	
								•	
									-
						•			
Source of C	net Date:								
Source or C	Cost estimate from local vendo	or on 3/20/01.							
Cost Adjust	ment Factor:							•	
	FACTOR:			NOTES:					
•	H&S Productivity (labor & equip) <u> </u>		Level D					
	Escalation to Base Year						-	, cost information	2000
	Area Cost Factor	X				-	code (Means		
	Subcontractor Overhead & Pro			-	-			ead and Profit.	
	Prime Contractor Overhead & F	Prof. X		Assuming r	narkup of 1	0% each for	r both Overh	ead and Profit	

Alternative 7						** -			
Capital Cost	Sub-Element						~~~	T. 1.1.0 D. 1.0.1	,
COMMON F	ILL COVER			· .			COS	T WORKSI	HEET
Site:	Pownal Tannery Site								
Location:	Pownal, Vt								
Phase:	Feasibility Study					.*			-
Base Year: Date:	2001 Apr. 01					•			
Date:	Apr-01		·						
Work Staten	nent: Thickness of fill cover taken as 1.5 account for side slopes. Sand ton	over an a	approxima	ate area of 4	acres incre	ased by 30%	% to		
	account for side slopes. Salid tols	- 4 acres	S.I. X 3U7	6 litease x	1.5 tons = a	зрргох. 18,9	ou tons.		
Cost Analys	is:								
	•								
							UNIT		
DESCRIPTIO		QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Common Fill	•	18,876	TON	\$0.00	\$0.00	\$1.00	\$1.00	\$18,876.00	
DESCRIPTIO	Moane)	ΛTV	1 IAUT	1.4000	50185				
DESCRIPTION Excavation of		QTY 12,584	UNIT	LABOR	EQUIP	MTRL	TOTAL	TOTAL	
Loading of Fi		12,584	CY	\$0.34 \$0.39	\$1.66 \$1.91	\$0.00 \$0.00	\$2.00 \$2.30	\$25,168.00 \$28,943.20	į
	10 mi round trip	12,584	CY	\$1.66	\$5.10	\$0.00	\$2.30 \$6.76	\$85,067.84	
	8" layers, small dozer	12,584	CY	\$0.30	\$0.76	\$0.00	\$1.06	\$13,339.04	
	Fill, 6" to 12" lifts, vibrating roller	12,584	CY	\$0.40	\$1.15	\$0.00	\$1.55	\$19,505.20	
SUBTOTAL	, , , , , , , , , , , , , , , , , , , ,	. _,		*****	40	40.00	Ψ1.55	\$172,023.28	ĺ
Area Cost Fa	ictor						69%	\$118,696	
	Local and Means)						0378	\$137,572	
Subcontracto	r Overhead						5%	\$6,878.60	
SUBTOTAL							0,0	\$144,451	1
Subcontracto	r Profit		•				10%	\$14,445.07	1
SUBTOTAL								\$158,895.73	
DEȘCRIPTIC	N (Means - Sub O&P included)	QTY	UNIT	LABOR	EQUIP	MTRL	TOTAL.	TOTAL	
In-Place Den		8	EA	\$0.00	\$0.00	\$0.00	\$38.67	\$309.36	•
Area Cost Fa	ctor .						0004	#040.4C	
	Local and Means)						69%	\$213.46 \$159,1 <u>0</u> 9.19	
Prime Contra	clor Overhead						5%	\$7,955	
SUBTOTAL								\$167,064.65	
Prime Contra	ctor Profit						10%	\$16,706.47	
TOTAL UNIT	PRICE				-			\$183,771.12	· [
Source of Co	ost Data:								
	Local costs from nearby borrow sor Building Construction Cost Data, R	urce obtair S Means,	ed on 2/2 58th Editi	27/01. on, 2000					
Cost Adjustn	•			·					
	FACTOR								i
	FACTOR:			NOTES:			•		Į
	H&S Productivity (labor & equip)	LX		Level D					
	Escalation to Base Year			Escalation F	actor of 1.0	00 for base	year of 2001	, cost information 2	000
	Area Cost Factor	X		0.69 localiza	ation factor	for 052 zip o	code (Means	s)	
	Subcontractor Overhead & Prof.	×						ead and Profit.	
	Prime Contractor Overhead & Prof.	$\overline{\mathbf{x}}$						ead and Profit.	1

Alternative 7 Capital Cost : TOPSOIL	Sub-Element						COST	WORKSH	EET
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01								,
Work Statem	nent: 6" layer of topsoil over an approxir weight of topsoil = 1.5 TONS/CY x				by 30% to a	ccount for s	ide slopes. A	ssuming	
Cost Analys	is:				-				
DESCRIPTIO Common Top		QTY 6,292	TINU	LABOR \$0.00	EQUIP \$0.00	MTRL \$11.50	UNIT TOTAL \$11.50	TOTAL \$72,358.00	
Loading of To Hauling Tops	f Topsoil at pit opsoil at pit soil, 10 mi round trip stion, 67% Level, 33% Slope	QTY 4,195 4,195 4,195 4 19,360	UNIT CY CY CY ACRE SY	\$0.34 \$0.39 \$1.66 \$22.05 \$0.06	\$1.66 \$1.91 \$5.10 \$40.14 \$0.15	MTRL \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$2.00 \$2.30 \$6.76 \$62.19 \$0.21	TOTAL \$8,389.33 \$9,647.73 \$28,355.95 \$248.76 \$4,065.60 \$50,707.37	
Area Cost Fa SUBTOTAL (actor (Local and Means)				,		69%	\$34,988 \$107,346	
Subcontracto SUBTOTAL Subcontracto SUBTOTAL Contractor O SUBTOTAL Contractor Pr	or Profit verhead rofit						5% 10% 5% 10%	\$5,367.30 \$112,713 \$11,271.34 \$123,985 \$6,199.24 \$130,184 \$13,018.40	
Source of Co	ost Data:								
	Local costs from nearby borrow so Building Construction Cost Data, F Environmental Remediation Cost (RS Means, 8	58th Editio	n, 2000					
Cost Adjustr	ment Factor:				-				·
	FACTOR: H&S Productivity (labor & equip) Escalation to Base Year Area Cost Factor Subcontractor Overhead & Prof. Prime Contractor Overhead & Prof.	X X X X		0.69 localize	ation factor narkup of 10	for 052 zip o 0% each for	code (Means) both Overhe	cost information 20 ad and Profit. ad and Profit.	00

Alternative 7 Capital Cost	Sub-Element					•		
	STRUCTURES						COST	WORKSHEE
Site: Location: Phase: Base Year: Date:	Pownal Tannery Site Pownal, Vt Feasibility Study 2001 Apr-01							
Work Staten	nent-							
Troncourter	Estimate of material required to perimeter of cap footprint, width geotextile. An allowance for two drainage outlet structures.	of 10° and c	lepth of 2	, consisting	of 10 to 10	D lb riprap or	ver nonwove	en :
Cost Analys	is:							
							UNIT	
	Riprap, Heavy (25 to 500 lb) Riprap, Light (10 to 100 lb)	QTY 60 1602	UNIT CY CY	\$3.00 \$3.00	EQUIP \$2.38 \$2.38	MTRL \$15.78 \$15.06	TOTAL \$21.16 \$20.44	TOTAL \$1,269.60 \$32,744.88 \$34,014.48
Area Cost Fa	octor						69%	\$23,470
SUBTOTAL Prime Contra SUBTOTAL DESCRIPTIO Geotextile	or Profit actor Overhead octor Profit ON (Local Contractor) actor Overhead actor Profit	QTY 7212	UNIT SY	LABOR	EQUIP -	MTRL	5% 10% 5% 10% UNIT TOTAL \$1.50 5% 10%	\$1,173.50 \$24,643 \$2,464 \$27,107.84 \$1,355 \$28,463.23 \$2,846.32 \$31,309.56 TOTAL \$10,818.00 \$540.90 \$11,358.90 \$1,135.89 \$12,494.79
Source of Co Cost Adjustr	Environmental Remediation Cost Geotextile estimate from subcont	Data, RS I	Means, 6i nstalled m	th Edition, 20 naterial, inclu	000 des subcon	itractor's ma	rkup for ove	rhead and profit.
	FACTOR: H&S Productivity (labor & equip)			NOTES: Level D				
	Escalation to Base Year			Escalation f	actor of 1.0	00 for base	year of 2001	, cost information 2000
	Area Cost Factor	×				•	ode (Means	
	Subcontractor Overhead & Prof.	X						ead and Profit.
	Prime Contractor Overhead & Pro	of. X		Assuming n	narkup of 10	0% each for	both Overhe	ead and Profit.

Common costs Capital Cost Sub-Element **COST WORKSHEET** LAND USE RESTRICTIONS Pownal Tannery Site Site: Location: Pownal, Vt Feasibility Study Phase: 2001 Base Year: Date: Apr-01 Work Statement: Zoning/Deed restrictions Cost Analysis: UNIT DESCRIPTION QTY UNIT LABOR EQUIP MTRL TOTAL TOTAL \$150.00 Legal Preparation 120 HR \$0.00 \$0.00 \$150.00 \$18,000.00 \$7,604.00 HR \$75.00 \$18.43 Engineering Support 80 \$1.62 \$95.05 Filing 1 LS \$0.00 \$0.00 \$2,000.00 \$2,000.00 \$2,000.00 SUBTOTAL \$27,604.00 Contractor Overhead 5% \$1,380.20 SUBTOTAL \$28,984.20 Contractor Profit 10% \$2,898.42 TOTAL UNIT COST \$31,882.62 Source of Cost Data: Engineering judgement